# NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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RAYNOLDS & NOURSE, Proprietors. Office....Quincy Hall. SIMON BROWN, Editor. FRED'K HOLBROOK, HENRY F. FRENCH, } Associate Editors.


## CALENDAR FOR FEBRUARY.

S THE fields are now locked in frost, and the earth is reposing and gathering energies for another season, suppose we close the shutters, stir up the fire, and in this warm precinct, map out the heart, as it were, and see what are its objects, motives and desires for the future! But particularly in reference to rural life.

If we were allowed to invade the dominions of the clergyman, select a text and draw deductions from it, we should, of all others, select the words —"*Magnify thine office.*" Failing to observe the injunctions of this short and simple precept, thousands are ever afloat upon the sea of life, as the tempest-tossed and shattered barque upon the ocean, with rudder gone and reckoning lost. Without a love for the occupation in which we are engaged, combined with a steady aim and effort, few enterprises will be successful, and least of all, perhaps, that of the farmer. That his motives and desires are the happiness of himself and those dependent upon him, together with that of the race, we have studied his character and associated with him too long to entertain a doubt. That self-aggrandizement, an inordinate desire for distinction, and a reckless expenditure of means to attain them, cannot be justly charged to the farmer, must be clear to all. Yet with these most laudable intentions, he is in too many instances discontented with his condition in being obliged to cultivate the earth for his support.

In tracing the lines upon this map of the heart which lies so fairly before us in the mellow light, we find no evidence of culpable ambition, no deep laid schemes for gaining political power, no propensity for litigation with a neighbor, or low cunning to defraud him of his honest due; but on the contrary, most of its various fields are fair, glowing with benevolence and love, and speaking "*Peace on earth, and good will to men.*" Still, he is discontented. That which we speak is no idle fancy of ours. Hundreds of visits to their homes, and free conversations with the inmates of the farmer's household, have indelibly impressed the unwelcome truth upon our heart, that in numberless cases he is dissatisfied with his occupation. If the assertion needs sustaining, proof, undeniable, may be found in all the cities; *they* are glutted with a surplus population, deluded by their tinsel and glare, too lazy to work, too proud to beg, but, alas, oftentimes *not* too moral to steal. These "ragged regiments," scattered in the country and "subduing the earth," might stand among the pillars of the nation instead of becoming a burden to it, and rotting in idleness and luxury and subsequent poverty and disease, a plague-spot on the body politic.

As the good physician seeks to find the cause of the disease he is called to cure by ascertaining the particular organ affected, so must we seek here, the cause of such wide-spread dissatisfaction and discontent, and in order to do this, must again recur to the map still on the table before us. Here we find a field possessing all the natural qualifications of soil, variety, aspect, &c., and capable of readily receiving the genial suns and fertilizing rains, when properly cultivated,—and this is its name—"*The Intellectual Field.*" But what an appearance does it present! The fences of stone, or rails, or brush, straggle away into the pastures and wood-lot; stumps and rocks project upon its surface while burdocks and brambles and countless baneful weeds scatter themselves in wild luxuriance through all its length. Here gush up chilling spring waters, which flowing over the surface, encourage the growth of rank plants unfitted

for the use of man or beast, and, like evil passions in the uncultivated heart, check every plant of kindlier growth. And, strange to tell, this neglected field is the most prominent one on the map; it may be seen from the windows of the house, from every other portion of the farm, and overlooks the highways leading to the towns of Happy Dale and Sweet Content. And this is the cause of the dissatisfaction of which we speak—a neglect to cultivate "*The Intellectual Field!*" From year to year it lies a dreary waste—the gentle dews and refreshing rains fall upon its hard, unyielding surface in vain; the sun warms it but to be reflected back with all its vivifying power, and the sweet breath of spring drops no fatness there.

Such is the manner in which the farmer treats the *intellectual field*, while the others are cultivated with unceasing care; and until justice is done to this, the most important of all, farming will be but a *tread-mill* kind of occupation, and will offer few inducements to the young and enterprising to enter its courts.

In this branch of culture, the farmer possesses great advantages—he can work in this field in the winter; his garners are full, and close and constant application is not necessary. We cannot say now how this cultivation should be accomplished; he must *think* it out himself. February's snows, and winds and storms, cannot suppress the emotions and desires of an earnest heart, but will offer opportunity for it to explore new and interesting fields, so that it shall increase in wisdom and usefulness through each revolving year. But *this* may be said—We must not be satisfied merely with what we can *see*. There is an "inner man" to be cared for. Because Winter scenes assume the sway, they should not cut off the delightful anticipations of Spring, the glory of the fields in Autumn, the return of flowers, "busily working at their gay toilets, and weaving their fantastic robes, and shaping their trim forms, and distilling their rich essences." What a race should we be, if we knew and cared to know of nothing, but what we can see and prove!

"Whose mind is but the mind of his own eyes,
He is a slave—the meanest you can meet."

But there are some visible things to be done, and we will attend to them now—the first of which is to

Look at your Young Trees.—The deep snows, followed by rain storms, will prove destructive to young trees unless attention is paid to them. Many young pear trees, particularly, were covered by drifts, and if they are allowed to remain and freeze about the branches, they will be dragged down by the settling snow and rain, and broken. When frosty, these branches are tender and break easily. The young apple trees, quinces, and valued shrubs, should also be looked after.

The Farm.—Profit, and great convenience, will be found by making a sketch of the outline of the farm, and then of its existing divisions, giving the buildings their proper position.

Scions.—Cut scions now and place them in a cool damp cellar, or cover with sand, that they may be ready for use.

Seeds.—Prepare seed corn, potatoes, peas, beans and all other seeds that you intend to plant, and make it an invariable rule to *select the best* of whatever kind you use. Great improvement may be made in the *quality* of crops by the strict observance of this rule, and probably of *quantity*, too.

The Stock—Of all kinds—will frequently require the *master's eye;* it will not answer to trust too much to hired hands. There will be no profit in careless and indifferent keeping. Cattle like different kinds of food the same day. Working oxen, especially, but all neat cattle, will thrive better for being supplied with good beds of litter, as they will lie warmer and easier, and keep cleaner.

This is, in our opinion, a part of the Farm Work for February; if you do not like the sketch, kind reader, write one out yourself, and lay it before us.

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*For the New New England Farmer.*

## THE GOVERNOR AND THE FARMER.

Mr. Editor:—I am pleased to observe in your paper of this date, a notice of what his Excellency said in his late message, of three full columns, in relation to the interests of the farmer, and the advancement thereof. As more than one-half the population of the State are directly engaged in the cultivation of the soil, and the remainder are dependent on its products for subsistence, there seems to be a peculiar propriety in the Executives of the State, and of the Nation, giving their favor and approbation to the employment of the farmer. We hope his Excellency, who is *ex-officio*, of the *Board of Agriculture*, will continue his favor to the cause of the farmer, and do all he has promised, and even more.

X.

*Jan.* 21, 1854.

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*For the New England Farmer.*

## BUTTER PRODUCTS IN BERKSHIRE.

[IN ONE WEEK.]

| | | | | | | |
|---|---|---|---|---|---|---|
| Cow No. 1.. | June..... | 346 lbs. | milk..... | 16 lbs. | 11 oz. | butter. |
| | September.. | 331 | " ..... | 16 " | 5 | " |
| Cow No. 2.. | June..... | 440 | " ..... | 17 " | | " |
| | September.. | 410 | " ..... | 16 " | 14 | " |
| Cow No. 3.. | June..... | 337 | " ..... | 15 " | 11 | " |
| | September.. | 293 | " ..... | 15 " | 1 | " |
| Cow No. 4.. | June..... | 319 | " ..... | 15 " | 8 | " |
| | September.. | 248 | " ..... | 13 " | 8 | " |
| Cow No. 5.. | June..... | 319 | " ..... | 12 " | | |
| | September.. | 280 | " ..... | 11 " | 4 | " |
| | | 3328 lbs. | milk. | 150 lbs. | of butter. | |

Being one pound of butter to 22 pounds of milk—not quite up to those cows which are *said to produce* a pound of butter for "*each and every gallon of milk.*" Berkshire farmers must look out, or Middlesex speculators in stock will out-run them.

*Jan.* 11, 1854.

*For the New England Farmer.*

## CONCORD FARMERS' CLUB.

Last evening, (Jan. 5th) the Farmers' Club had a public meeting, and although the walking was very bad, there was a very good attendance of gentlemen and ladies. A very interesting lecture was delivered by SIMON BROWN, Esq. He began by speaking of the antiquity and honorable character of Agriculture, and its importance as the basis of national wealth and prosperity; prosperity founded on commerce may be interrupted by war, or destroyed by competition; but that which is founded on Agriculture is of a more permanent character. He then spoke of the means by which Agriculture has been improved, and is to be still further improved; and of the special importance of Chemistry and Vegetable Physiology, and urged their study upon the youth of the community. He spoke of the many facilities we enjoy in the shape of improved methods of cultivation, and improved agricultural implements, when compared with our fathers; and urged the importance of farmers availing themselves of all these facilities. He spoke of the importance of association for mutual improvement in agricultural knowledge, and the influence they were exerting and of the value of the agricultural literature which is growing out of the wants of the times, and mentioned the names of several books which every farmer should have as a part of his agricultural stock.

The lecturer then addressed the wives and daughters of the farmers, and pointed out the importance of their being truly helps meet for him. He exhorted them to make themselves acquainted with all the processes of the farm; with the nature of different soils, and the crops suited to each, and with the best times and methods of cultivating the various crops on the farm. He told very finely, the story of Mr. Colman's visit to an English landholder, whose accomplished lady claimed his company for the day, took him over the broad fields which her husband was cultivating, and explained to him the various processes of cultivation which were going on, and the reasons upon which each was founded; showed him the stock and the dairy, answered all his inquiries respecting the breeds of cattle, and swine and sheep—and the different methods pursued with each. And after having thus walked with him some eight or ten miles over their extensive domain, and shewed herself thoroughly acquainted with both the science and the practice of agriculture, she presided at the dinner-table with all the grace and elegance of a lady who had spent her life in the drawing-room. So our farmers' wives should be prepared to direct the affairs of the farm in the absence of their husbands. They should take an interest in the employments of their husbands, and cheer them with their smiles and co-operation; and here he quoted most appropriately—

> "To-morrow, ere fresh morning streak the east,
> With first approach of light, we must be risen,
> And at our pleasant labor, to reform
> Yon flow'ry arbors, yonder meadows green."

And Eve's beautiful reply,

> "With thee conversing, I forget all time,
> All seasons and their changes, all please alike."

The lecturer referred to Mrs. Loudon's book on gardening, and the circumstances under which it was written, and to the scientific writings of other ladies, and to others still, who have aided and encouraged their husbands in the various pursuits in which they have been engaged. The moral tone of the address was of a high order, and the whole performance was highly creditable to its author.

After the close of the address, an interesting and animated discussion took place upon the following subject; "The Home of the Farmer—How can it be rendered in the highest degree pleasant and attractive?"

Mr. Wm. D. Brown read a finely written and highly poetical essay of about ten minutes' length, in which he described the situation and construction of farm buildings, their convenient arrangement, and the neatness and order in which they should be kept, as important elements in the pleasantness and attractiveness of the farmer's home, and then referred with great naivete to attractions which might exist within the house, but which he, as a bachelor, could be supposed to know but little about.

He was followed by Dr. Reynolds, who inquired to whom the farmer's home was to be made attractive? To people of the beau monde? To gentlemen in gloves? To fashionable ladies? Or was it to be rendered attractive to the farmer's sons and daughters, so that they might be contented to remain upon their paternal acres? He supposed the latter the most important class to be attracted. It was a general complaint that our young men were all going to the cities, to California, to Australia. How can these young men be induced to remain at home, and devote their energies to the improvement of agriculture? He thought it must be by giving it a more intellectual character, and thus elevating it to a level with the professions. To this end they must be educated for the business of farming, as other young men are educated for other callings. They should be taught Agricultural Chemistry, Vegetable Chemistry and Physiology, Geology and Botany, and all that pertains to the science and practice of agriculture. Thus the craving of the youthful mind for knowledge will be satisfied. His labors in the field will be guided by fixed principles, and be attended with more certain results.

When agricultural education and scientific cultivation shall become general, then the business, the calling, the home of the farmer will become

in the highest degree attractive to thinking, enterprising young men. Pleasant situations, ornamental trees, flowers, avenues, neatness and order are all desirable and all contribute much to the pleasant associations connected with the farmer's home, but these alone, without something that shall occupy and satisfy the mind, will not be sufficiently attractive to keep our young men and young women in the business of agriculture. Dr. R. was followed by J. B. Farmer, Esq., who made some remarks upon the manner in which the wife and daughter discharge their duties, as an important circumstance connected with the farmer's happiness. The cleanliness and order of the house and the comforts of the farmer depend essentially upon the wife and daughters, and if they would keep him at home and make home pleasant to him, they must attend to those things.

Other gentlemen not belonging to the club were then invited to take part in the discussion. Some interesting remarks were made by Rev. Mr. Frost, especially with reference to bringing mind to bear upon the cultivation of the soil. Where there was the best cultivation there was the most mind engaged in it. Where he saw about the premises beautiful flowers, finely cultivated gardens, neat avenues, delicious fruit, he was sure to find cultivated mind. Rev. Mr. Angier followed in some remarks upon the importance of habits of personal neatness in the farmer as having much to do with the comfort of home. He should carefully clean his boots, and leave in some back room the frock in which he took care of his cattle and cleaned his horses, and not disgust his wife and daughters by bringing the cow-yard into the sitting room. The wife and daughters should show that they sympathise with the father in his labors, and do what they can to make him comfortable after his day of toil. They should meet him with a pleasant smile, and be ready to attend to his wants. Elizabeth should get his slippers, and Susan take away his boots, and all should be emulous to make him feel that his comfort is an important consideration with them.

The interest of the discussion was kept up till nearly ten o'clock.

The meetings of the Club have been held weekly, at the houses of the members, since the latter part of October. At our next meeting the subject of garden fruits is to occupy our attention.

I will endeavor to keep you informed of passing events in our good old town, especially when any thing occurs which I think of sufficient general importance to merit a place in your paper,

Yours, truly, H. S.

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WATERPROOF FOR LEATHER.—Linseed oil, one pint; yellow wax and white turpentine, each two ounces; Burgundy pitch, one ounce. Mix and color with lamp black.

*For the New England Farmer.*

## MONTHLY FARMER FOR JANUARY.

As almost every body takes some sort of reckoning of progress and prospects, on the commencement of a new year, it may be well for us to ask, here, how stands the cause of agricultural improvement? We are prompted to do so especially by the fact that the number of the *Farmer* before us, which commences the new year, and the number which closed the old year, point out several signs of the times, which, by one and another, seem to be regarded as unfavorable to any very speedy advance. Of these, however, we shall be able to notice only one—the fact that agriculture does not offer as high a premium for talent as do other professions.

I shall not attempt to controvert this fact; indeed, I must go further, and admit that I cannot do it. None but a dreamer will ask for proof of the assertion that individual New England farmers cannot afford to pay those in their employment the $1800 a year that city school-masters command, or the $3 to $7 per day that factory, bank and railroad corporations, ship owners and extensive merchants, pay their competent superintendents. In this state of things, suppose a dozen or two of young men were to graduate yearly from an agricultural college in each State of the Union, masters of one-half the sciences proposed to be taught in them,—would they not say, "Unless farmers will pay as high a premium for talent as other people will, we shall seek our reward in other pursuits?" And would they not as surely and justly do so, as the farmer will sell his produce to the highest bidder? For ought I can see, then, looking in this direction, our "day of darkness" tends only to a darker, drearier night. The wheels of our car of progress are blocked, if not reversed. And a "Happy New Year" can mean no more, agriculturally, than "may your shadow never be less,"—seeing it can never be larger.

Now I prefer a more hopeful view of the subject. What though institutions and systems of education which answer well in old countries, where the population is dense, where one man owns land enough for a county, and has tenants enough to people whole villages, should fail here, where population is sparse, where each individual is as good as a lord, and where every man—

> ——"that by the Plow would thrive,
> Himself *must* either hold or drive,"

or do both, any way he can fix it?

In the history of the colonization of our country, we find that the codes of laws which were drawn up in the closets of English statesmen and philosophers, often proved utterly impracticable in the wilderness here, and were superseded by such simple regulations as neighbors chose to adopt. Bancroft intimates (vol. ii., p. 145) that Locke's elaborate constitution for Carolina failed because "he believed it possible to construct the future according to the forms of the past."

In the revolutionary struggle also we find that "the wisdom of this world" was confounded. Duane (Military Library, Art. Origin of Rifle Corps) says, that the means and mode of defence which the Americans adopted in the early contests not only inspirited the British army during the remainder of the war with dread and apprehension, but actually effected an important change in

European tactics. Had the yeomanry of that day waited for the drilling of a scientific military school, instead of hastening just as they were,

"With lopp'd down hats and rusty guns,"

to the contest, the world might have lost a lesson on the efficiency of light troops, and we our national independence.

Our history is full of similar instances, but these are sufficient to indicate the true principle of national prosperity,—*The use of means adapted to, and growing out of, our peculiar circumstances.*

And I believe that agricultural progress in this country must be made on the same principle. Instead of persisting in our reliance upon the institutions of the past, we should open our eyes to the indications of that Providence who rules the present, and it would be well if we could do it with the conviction that "it is not in man that walketh to direct his steps." For a long time we have been attempting to "direct our steps" towards agricultural schools and model farms. We have commenced the work at various times, and in various parts of the country, but have met with utter failure in every instance.

During the same time an "Institution" has sprung up spontaneously in our land, with a sweep as wide as the wants of our people—a sort of clairvoyant institution, whose "students" may saw shingles in Maine, dig gold in California, cut ice in Massachusetts, or raise wheat in Minnesota and cotton in Georgia, without breaking up the class, or losing a single lesson of the term, or a lecture by any of its professors! This institution is the agricultural Press. A new power to be sure, and still in its infancy. But while our incipient agricultural colleges have furnished no signs of promise, the infant agricultural press has multiplied its books and papers till the secluded mountaineer, and the remote "squatter" are beginning to read about farming, and thus, perhaps unconsciously, are imbibing potions—homœopathic though they may be—of the milk of science, that will gradually form an appetite, and a digestion for stronger food. This must be supplied, and to do it, the best talent of the land will eventually be secured to the cause of agriculture, and that through the Press. Suppose that the interest of one hundred thousand dollars, which would scarcely suffice to keep a half-starved college in existence, was to be expended yearly in rewarding the service of such talented, scientific and experienced men, as might be induced to devote a portion of their time and energies to enrich the ample columns of the *New England Farmer*, who will undertake to calculate the results of the investment.

But here I leave the future, to take care of itself, while I attempt a brief synopsis of the first number of the *Monthly Farmer* for 1854.

BIRDS.

No. 8 of Mr. Fowler's articles on the Birds of New England, in which many people will be sorry to find the Robin gets a rather bad name.

CATTLE.

Articles on "Short Horn, or Durham Heifers," with plate, on "The Wintering of Stock," and on "Dry Food."

"DRAINING."

Comments and directions by one who has evidently been schooled to the business in the old country. But it will be a long time before the farms of New England will be drained, as he recommends, "27 inches deep and 18 feet apart."

FIRE WOOD.

While ready to endorse the caution of the Editor against smoking and sizzling domestic felicity out of existence by the use of "Green Wood," my experience does not confirm all that chemists say of the relative value of green and dry wood. Prof. J. J. Mapes says, (Nov. *Farmer*, 1851) "Three cords of green or partially dried wood will not warm a room for as great a length of time as one cord well dried." Now, although a "most unscientific reader," and knowing nothing of the "rationale" of the matter except what I have learned by chopping wood and tending fires from my youth up, I must be allowed to shake my head when told that one cord of anybody's dry wood will warm a room as long as three cords of green or "partially dried" white oak or hickory, however learned may the man profess to be who says it. In "The table of the comparative value of different kinds of Firewood," white pine is put down as worth $3.11, and pitch pine, $3.18; or seven cents difference per cord. In this section white pine sells for four-fifths only of the price that pitch pine readily commands.

FAIRS.

An account of the "Maryland Cattle Show and Fair," held in Baltimore, last November. Among the fine display of domestic animals, the writer regretted to find a specimen of that miserable breed —the striped pig, that "run out" so many farmers in New England, years ago; but rejoices that President Pierce, who was present, refused to take a look at the "critter." "Agriculture in Virginia" heads an account of the State Fair, at which $60,000 were subscribed to advance the cause of agriculture in the Old Dominion.

FRUIT.

The unusual scarcity and high price of winter apples, this year, give more than usual interest to articles upon this subject, and may perhaps influence some to resolve, at least, to plant trees of their own. That one man, who cultivates only eight acres of land, should sell $850.00 worth of fruit, this barren year, (page 16) is rather exciting to those who cultivate much more land with far less to sell. If any where near market, you may plant trees, and let the croakers croak,—glut the market first, if you may, and then your cattle, if you can—poor creatures, eating dry hay all winter, how they would relish a half peck of apples occasionally! But what says the *Farmer?* Don't your mouth water as you look at that "Winter Nellis Pear!" What do you think of those "Observations in a Garden," as the writer discourses of Plum Trees, Wash for Trees, and the Dix Pear? Of "S. F.'s "Low-limbed *vs.* Tall Trees?" of those six reasons for preferring "Autumn Transplanting of Fruit Trees?" of those remarks on salting Plum Trees, Potash Wash, and Trimming Trees, to be found by looking in the index for "Upland Cranberry?"

GRAPES.

An illustrated chapter on "Grape Vines—Bearing and Pruning."

"GREAT CROPS."

A statement of several Premium Crops in New

Hampshire, with editorial comments on "one hundred and eleven bushels and fourteen quarts of corn on one acre!" Although the editor has been among the great-crop folks a good deal, he says such a field "certainly would be a sight such as we have never yet been permitted to see."

MANURES.

To the farmers of New England this is the great subject for study and discussion; for, of what use are mowing machines and horse-rakes where grass don't grow, of double plows and bright hoes in a barren field? Our old farms must be enriched or our sons will go to the west, to the shop, and store. We want, then, all the aid that science can afford, all the teachings that experience in all parts of the world has suggested. Hence the value of an agricultural paper depends in a good degree upon the attention given to the subject of manures. On this principle the first number of the *Monthly Farmer* for 1854 is unusually rich and instructive. On turning over its pages we have marked eight articles that treat of this subject. First "Waste of Urine," in connection with "Chinese Manures," suggests the means of a great saving in the management of common materials. While "Preparation and Application of Manure," "Something New—Guano," and "Observations in a Garden," give some hits on the vest-pocket nostrums of the day, they have many suggestions of general application. The great object of the writer of "Manures—Barn Cellars," seems to be to prove that "the guidance of science is preferable to that of unscientific experience." I believe they are seldom antagonistic, and ought to be harmonized, not put in opposition. The learned professor and the ignorant Chinese, for instance, arrive at the same conclusion as to the value of urine. But at this rate of writing I shall have to pass over the articles on "Humus," on manufacturing "Superphosphate of Lime," and the inquiry about "Oyster-shell Lime," without comments, although I must say it is a little strange that an article which has been so highly recommended and so long advertised as oyster-shell lime has been, should still be so little known as a manure.

PORK.

"Fattening Swine" is an article full of practical suggestions of economical ways and means of making Pork, and on pages 39 and 40 are some valuable experiments showing how much pork a bushel of corn will make.

PLOWS AND PLOWING.

Four articles on the "Double Plow;" one by Mr. Sheldon, who finds that two yoke of oxen will plow as easily with a single plow as three yoke can with the double plow; the other three articles contend that the double plow is worked as easily as the single, at a given depth. With a dissertation on "Fall Plowing, &c." by L. Durand.

SCIENTIFIC.

"History of Vegetation, No. 2," by "R. H. H." Nature of "Coal Ashes," and the constituents of "Manures" from Johnston, &c.

SHEEP.

"Practical Hints in Sheep Husbandry" is an article appropriate to its caption, and "Polled Sheep" gives some half-dozen objections to horns on sheep.

TEMPERANCE.

The illuminated "Calendar for January" is a temperance lecture that must stir the feelings of those of us who are unfortunately old enough to have our boyish memories printed all over with painful reminiscences of "the times when it was fashionable to drink intoxicating liquors." The editor has drawn a gloomy picture of those days; but that is a fortunate person whose experience will allow him to doubt its truthfulness; whose boyish ears have never listened to the vulgar story and the obscene jest that were repeated evening after evening in those "schools of vice"—the village stores; and who knows nothing of the privations endured by the family to meet the grog bill, of how the best cow and the best sheep, were selected yearly by the merchant, and driven away to pay for more rum, and of how whole districts might be found in which not a single newspaper was taken, and not one house in four could produce a dictionary. Is the blighting curse of intemperance returning?

TREES.

"Trees on Farms," after admitting that scattering trees in open fields in England are "going," advises their continuance particularly in the pastures of our dry and scorching summers.

VARIOUS

other articles, which perhaps from their individuality could not well be classified, richly deserve notice. "Points are Pins" I have read over and over. "Rail Stockholders" ought to be studied by all who own shares or ride in the cars. "Chronicles of a Clay Farm" is by no means as "heavy as mud." Some excellent hints on the Improvement of "Winter Evenings;" on "Thanksgiving;" on the "Cultivation of Willow," &c.

A Reader.

*Winchester, Jan.*, 1854.

## SWALLOWING A HORSE.

Mr. Gardner, in his "Travels in Brazil," confirms the early accounts respecting the size and prodigious swallowing capacity of the boa constrictor—accounts which certain naturalists, whose researches never extended beyond the galleries of a museum, are in the habit of treating with ridicule and unbelief. "The boa," said he, "is not uncommon throughout the whole Province of Gogaz, particularly by the wooded margins of lakes, marshes and streams. Sometimes they attain the enormous length of forty feet; the largest I saw was in this place, but it was not alive. Some weeks before our arrival at Sape, the favorite riding horse of Senor Lagoeira, which had been put out to pasture not far from the house, could not be found, although strict search was made for it all over the hazienda. Shortly after this, one of his vaqueros, in going through the wood by the side of a small river, saw an enormous boa suspended in the fork of a tree which hung over the water; it was dead, but had evidently been floated down alive by a recent flood, and being in an inert state, it had not been able to extricate itself from the fork before the waters fell. It was dragged out to the open country by two horses, and was found to measure thirty-seven feet in length. On opening it, the bones of a horse were found in a broken condition, the head being uninjured. From these circumstances

it was conceded that the boa had devoured the horse entire. In all kinds of snakes the capacity for swallowing is prodigious. I have often seen one not thicker than my thumb swallow a frog as large as my fist; and I once killed a rattle snake, about four feet long, and of no great thickness, which had swallowed not less than three frogs, one of which swelled out its side nearly twice the thickness of the other parts. I have also seen a very slender snake that frequents the roofs of houses, swallow an entire bat three times its own thickness. If such be the case with these smaller kinds, it is not to be wondered at that one thirty-seven feet long should be able to swallow a horse, particularly when it is known that, previously to doing so, it breaks the bones of the animal by coiling itself round it and afterwards lubricates it with a slimy matter which it has the power of secreting in its mouth.

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*For the New England Farmer.*

## VERMONT STATE AGRICULTURAL SOCIETY.

A Visit to David Hill, Esq., Bridport, Vt.

Mr. Brown:—I recently attended the annual meeting of the Vermont State Agricultural Society, at Middlebury, held for the choice of officers, awarding of the winter premiums, and other business. The officers of last year were mostly re-elected. Premiums were awarded for various fine field-crops, for the best system of preparing manure, and for essays on various subjects. I will endeavor to furnish you with some of the essays and statements on crops and manure, for publication in the *N. E. Farmer.* The meeting was well attended, harmony prevailed, the Treasury was found respectable in funds on hand, and the members parted with the feeling that the prospects of the society are good. Those who have ever engaged in starting associations of this kind, without funds, and with everything to be arranged and ventured upon without the aid of exact experience and precedent, understand well that there is work in it. The Vermont Society is now entering upon its fourth year; and although it began in great pecuniary weakness, it has had the suppport of resolute and intelligent men, each year has added materially to its strength and efficiency, and I believe it is now favorably regarded by a goodly number of our citizens.

After the meeting of the State Society, upon invitation of David Hill, Esq., I accompanied him to his place in Bridport, to see his celebrated horse, old "Black Hawk," and his progeny.—Persons who haveever visited Mr. Hill, never forget his hearty hospitality and pleasant address. Though now considerably in years, Black Hawk feeds well, is very animated and vigorous, and as playful as a colt. Every precaution which good judgment would dictate, is used to promote Black Hawk's health and prolong his life. His winter apartments are such as become a horse of his fame and value. He has a room some twenty feet square, high, airy and of healthy temperature, with the natural ground for a floor, sprinkled with clean straw, where he has liberty to roll, frolic, and do as he pleases. He passes at will from this room to a stable and manger where he is fed. He neither wears shoes, halter nor blanket; is not groomed, though kept free from filth by perfectly cleanly apartments; and his food consists of the best quality of hay, with but little grain. By means of this winter treatment, his blood is cooled and purified, constitutional vigor is promoted, and his life will probably be lengthened. Stock horses of the Morgan breed, if kept too much confined and too high in old age, are liable, from their great appetite and powers of digestion and assimilation, to become too fat, and to be suddenly attacked by apoplexy. At a suitable time in the spring, Black Hawk is shod, harnessed and exercised daily in a gig, nicely groomed, and fed more highly with grain.

Black Hawk is of a coal black color, has a heavy mane and tail, is of splendid conformation, and very intelligent. His pedigree has been often stated in print, and you are doubtless aware that he was got by the famous horse "Sherman Morgan," out of a sporting mare considerably in the blood of the thorough-breed. The experienced eye, in observing Black Hawk, readily detects in him the Morgan qualities of compactness, substance, a full developement of those organs which give great powers of digestion and assimilation, docility and kindness of temper, combined with tho oblique and high shoulder, liberty of limb and high mettle of the thorough-bred. His combination of blood is very remarkable; and it may perhaps be doubted if his like has ever been known for perpetuating the qualities of the sire so uniformly in so numerous a progeny. With due notice, Mr. Hill could assemble more than a hundred horses begotton by Black Hawk, all showing that uniformity of conformation and movement, almost incredible to persons not conversant with the fact—all possessing extra trotting speed, with docility, spirit, and that intelligence which readily learns whatever it is desirable to teach them; in short, with that rare combination of qualities fitting them for sporting, fancy or practical service.

It is an interesting fact, that Black Hawk has been frequently a pecuniary benefit to persons in moderate circumstances in his neighborhood. Several instances were cited to me of young men, farmers, mechanics and others, who having bred from him, have from the sale of their colts realized enough over and above the cost of production to clear them of debt, and enable them to pursue their legitimate callings to advantage.

Mr. Hill has several young colts by the old horse. One, a recently weaned foal out of a val

uable Morgan mare, is very promising. This mare was by the celebrated old Morgan Horse "Comet," or sometimes called "the Root Horse;" and her dam was of Messenger descent. Mr. Hill had the misfortune last spring to lose a two-years-old colt, own brother to the one above named, and which I thought a year ago now, the most promising colt of his age I had seen.

Mr. Edgar Hill, son of D. Hill, Esq., and living near his father, has a young stallion by Black Hawk, out of the dam of the "Myrick Horse." He is a stock horse of great promise, and several opportunities have already occurred to sell him at a high price. Mr. Edgar Hill has several promising colts by Black Hawk. He is trying the experiment of coupling Black Hawk with fillies of his own get, so as to obtain colts three-fourths in the blood of the old horse. Great care is used, however, in selections for this course of breeding; none but mares of extra limb and substance being chosen. He has a three-fourths blood weaned foal, which is very fine and vigorous, and argues well for the experiment.

Where mares of extra trotting speed have been coupled with Black Hawk, the colts have with few or no exceptions proved fast trotters; and indeed almost any good middling mare bred to him produces a colt of considerable more value than the average of serviceable horses.

F. Holbrook.

*Brattleboro', Jan.* 11, 1854.

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*For the New England Farmer.*

## FARMING IN NEW ENGLAND—No. 1.

The farmers of New England can successfully compete with those in the more fertile regions of the West, only by conducting their operations with superior science and diligence. It is only by the aid of science and the cheapness of labor, that the British agriculturist can save himself, under the operation of the free trade system, from being inundated by American productions; and the relations of the New England farmer to the Western, is quite analogous to that between the English and American. In England there is hardly *one* cultivator of the soil to *four* manufacturers and artisans, but in the United States, the case is exactly the reverse, there being about *four* cultivators of the soil to *one* in all other occupations. By the census of 1831, out of 3,414,175 families in Great Britain, 961,134, or nearly a fourth, (282 in 1000) were employed in the product of food. The census of 1841 showed a still greater disproportion between these two classes, the agricultural population having in many places declined, and the manufacturing having immensely increased. The census of 1851 exhibited a wider disproportion still so that now considerably less than one-fourth are employed in raising food for considerably more than three-fourths of the population.

In the face of all these facts, however, the importation of corn into Great Britain, except in cases of unusual scarcity, has been gradually *diminishing* for the last thirty years. How, then, is the English farmer able to meet this constantly increasing demand? The answer is by bringing to his aid the most recent discoveries in science, relating to the constituents of different soils, rotation and adaptation of crops, the chemical qualities of the various vegetables cultivated, and of the food which they require, &c., together with the latest improvements in agricultural implements. And in like manner, the New England farmer can compete with the Western, only by employing the same means. But the New England farmer labors under this additional disadvantage. Taking in the whole country west of the Alleghany mountains, the proportion of the population engaged in agricultural pursuits is as *eight* to *one* in all other pursuits. *There*, where the forests and the prairies are to be subdued, the old remark of Adam Smith still holds good, that a widow with eight children is sought after and married as an heiress; and as in the days of the patriarchs, the greater the number of arrows in the quiver of the Western cultivator, the greater is his strength in the gate.

Against this all but overwhelming competition, the New England farmer, on his sterile soil and worn-out acres, can never sustain himself, except by bringing to his aid every improvement which discovery in science and invention in art has brought to light, and which is adapted to his purpose. To cry out against these improvements and to refuse their assistance, is, therefore, clearly suicidal. The vast importance of this topic to the prosperity of New England can hardly be overrated, and some other considerations relating to it, will be presented in subsequent papers. D. C.

*Waltham, Jan.*, 1854.

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Remarks.—In this and subsequent articles which we are promised, the reader will find the subject of *New England Farming* discussed in a manner differing considerably from the usual mode of considering it, and must, we think, convince the doubting of the importance of a more systematic, and scientific management of farm affairs.

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*For the New England Farmer.*

## THE DIX PEAR.

Mr. Editor:—In the *Farmer* for January, a correspondent, in speaking of the *Dix Pear*, says that it does not fruit for 15 years on the pear stock, and that the obvious remedy would be to graft on the quince. But a nurseryman says that it is not good on the quince, though it may possibly bear earlier, and that scions set in an old stock must remain fruitless for 15 years. I have three trees on the quince, planted four years, all of which bore a fair crop of fine Dix pears, and look well for the coming season. Barry, in the Fruit Garden, says of this excellent pear, "it succeeds on the quince double worked, but not otherwise." I can see no sign whereby you could tell that they have been double worked. The trees are vigorous, and about six feet in height..

Yours, Blythewood.

*Swampscot, Jan.* 12, 1854.

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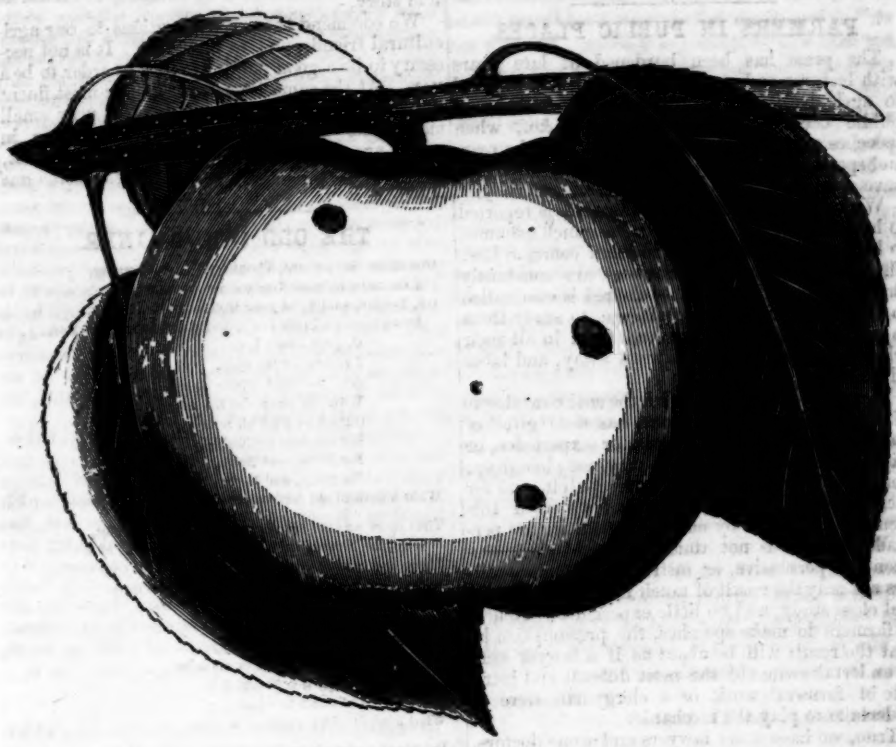
Cheap Paint.—An excellent and cheap paint, for rough wood work, is made of six pounds of melted pitch, one pint of linseed oil, and one pound of yellow ochre.



## DANVERS WINTER SWEET APPLE.

An abundance of good winter sweet apples is demanded in our markets more than any other fruit. Everybody likes them, cooked or uncooked; they are wholesome, easily prepared, and ought to be plenty and cheap.

We were favored with the original of the portrait above, by the Hon. J. W. Proctor, of Danvers, a gentleman who, although not a farmer, watches agricultural progress with unceasing interest. In a communication to the *Farmer* of last year, he says:—

"As to the Danvers Sweet, we know the town and the farm on which it originated. I have been familiar with it from my earliest years. It was owned by Daniel Eppes, Esq., at the time of the discovery of the tree from which so many good apples have proceeded, and which now continue to refresh all lovers of *apples and milk*, (than which few better dishes can be found.) This apple holds its original character with great distinctness. It has not the variety of shades that mark the Baldwin—it is unmistakable. Perhaps, like all other fruits, modified somewhat by the strength of the soil, or exposure to the sun; for all fruits are benefited by a fair exposure to light and heat, as well as the animal creation. How far these fruits have been, or are liable to be modified by the stocks on which they are *budded* or *engrafted*, is an inquiry beyond my power to answer. If the stock does not have some influence on the quality of the fruit, I should think it very strange—but that it does, I am not prepared to assert. If it does, then we can never be certain of continuing any particular variety of apple for any considerable length of time."

Mr. Hyde, another of our intelligent correspondents, and a practical fruit culturist, in an article in volume 4, page 176, does not speak so favorably of this variety.

We consider the Danvers Winter Sweet a variety richly worthy of cultivation. It takes its name from the town in which it originated.—Fruit of medium size, roundish oblong. Skin smooth, dull yellow, with an orange blush. Stalk slender, inclining to one side. Calyx set in a smooth, narrow basin. Flesh yellow, firm, sweet, and rich. It bakes well, and is fit for use the whole winter, and often until April.

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☞ At the recent Ohio State Fair, a rare genius took upon the show ground a hand cider-mill of the improved kind, together with a quantity of cider apples, and essentially hit *three* birds with one stone. He made his cider; sold it as fast as made

at five cents a glass; and at the same time showed his machine to the best advantage.

## FARMERS IN PUBLIC PLACES.

The press has been burdened of late years with lectures and sermons and satires, addressed to agriculturists, reprobating the fact that, on public occasions, as cattle shows, &c., when speeches are to be made, they fall into the rear, and speak only by proxy. Facts are as stated. We have a word or two to say as to their propriety.

We remember that Lord Mansfield is reported to have said that he should be as much ashamed to know statute law as not to know common law. The reason is obvious. Statutes are constantly changing, and not one in a hundred is ever called to the notice of a lawyer. Hence, to study them so as thoroughly to understand them in all their relations, would be time thrown away, and labor without profit.

It is so, in our opinion, with the entire catalogue of working-men. If any one has the "gift" of public speaking without study, or experience, or science, we know not why he may not *show it up*. For the sake of the bar and the pulpit, and for their clients' and hearers' sake, we wish this faculty did "come by nature." But we are persuaded that it is not thus that men become eloquent, or persuasive, or instructive. Such qualities are only the result of much reading, of careful and close study, and no little experience. Hence, if farmers do make speeches, the presumption is, that the result will be about as if a lawyer were to undertake some of the most difficult and intricate of farmers' work, or a clergyman were to undertake to play the mechanic.

True, we have some lawyers and some doctors, and some men of leisure, who enrol themselves on the list of farmers. Some are educated at college, or other equally useful institutions, so as to make them conversant with languages and with science; and thus, and *thus only*, are competent to acquit themselves handsomely in public speaking.

But not one half the lawyers, nor one half the ministers, nor one half the doctors, can make a good speech at a dinner-table, or at a public anniversary. Our Benevolent Societies, annually meeting in New York and Boston, are obliged to use over their old stock, and that, too, several times within our own recollection, and even then fail to sustain the interest with which they first began. This is a matter of notoriety. Under such circumstances, to laugh at farmers for not exposing themselves as volunteer bores, is far from being judicious or in good taste.

The farmer who toils all day, and at night makes plans for to-morrow, how can he be expected to become a good and acceptable speaker? If he has acquired the art before he becomes a farmer, or the mechanic before he becomes a working mechanic, it is all well. We wish many, *a multitude*, might thus qualify themselves before they commence these arduous pursuits.

Besides, our farmers are proverbially modest men. Different causes conspire to make them so. We should regret a change, and nothing would so thoroughly effect this change as frequent public debate. We have known a few absolutely ruined by this very process. They "outgrew their shoes." They substantially outgrew their dresses and their entire habits, and, like some of old, did nothing but hear or *tell* some new, and yet some thrice told story.

We commend these considerations to our agricultural friends, and to the press. It is not necessary to be a good public speaker in order to be a MAN. At the same time, some of our most fluent "orators" are, and are regarded as, very small men, while those who are always speaking in public are always laughed at. Of this, the last, we never knew an exception.—*Plough, Loom and Anvil.*

## THE OLD CORDWAINER.

One moon-shiny night, Thanksgiving was coming,
I mounted in haste Uncle Jeremy's mare;
Off, Dobbin, said I, let your trotters be drumming,
Down towards Uncle Lot's, and she soon had me there.
O, good Uncle Lot,
I remember the spot,
And the bench where he sat,
With his strap o'er his knee;
Our shoes were all ready,
For me, and for Neddy,
For Dolly, and Betty,
For Sally, and Hetty;
What a faithful old cordwainer was he.

Then there was the stitching so strong and so nice,
Why, the threads held the leather, as strong as a vice;
There was none of your pegging, nor none of your nailing,
No fretting, no scolding, no jarring, no railing.
When shoemaker Lot,
He worked on the spot,
Which I've not forgot,
With his strap o'er his knee;
He was honest and fair,
And exact to a hair,
What a useful old cordwainer was he.

But alas! now-a-days, how changed is this matter,—
Now honesty seems to go begging about;
One scarce has a shoe, or a coat, or a garter,
That lasts more than three weeks, before 'tis worn out.
O that some Uncle Lot
Would again take the spot,
And the bench where he sat,
With his strap o'er his knee;
And would work at the trade,
And have shoes faithfully made,
No cheating, no cozen,
No rips by the dozen,
What a useful old cordwainer he'd be.

## BUFFALOES.

A member of Gov. Stevens' northern route exploring party, in a long communication to the *St. Louis Republican*, written from the head of Yellow Stone, relates the following among many other "sights and incidents" of the party thus far:—

On Sunday, after a march of some ten miles, the buffaloes were reached. They were before and on each side of the train. For miles ahead it seemed one vast drove yard. They were estimated by some as high as 500,000—200,000 is considered a very low estimate. Drawing up the train at our usual halt at noon, a large herd were about half a mile ahead. The hunters, six in number, were immediately dispatched, well mounted on spare horses reserved for that especial purpose, and the whole train had an opportunity of witnessing a buffalo hunt. The hunters dashed in among the herd, picked out the fattest of the

cows, and then separating the selected ones from the herd, soon despatched them. In less than an hour the wagons were sent but a small distance from the route to receive the choicest pieces of the buffalo.

In the next two days' march the hunters were kept some distance ahead, to keep off the buffaloes; it was the only way the safe passage of the train could be insured through this sea of flesh. The pack mules and spare animals following on in the train, too numerous to be separately led, were hard to control; and despite every precaution and care, one horse and four mules were lost, they getting mingled with a herd of buffaloes. Every effort was made to reclaim them—hours spent in their attempted recovery. The efforts were entirely useless.

## WILL DRY GYPSUM ABSORB AMMONIA?

That is, will dry ground plaster, spread on the manure heap, prevent the escape of its ammonia, so that on entering the stable where horses are kept, or the barn cellar, where the droppings from the leanto are collected, we shall not smell any odor from them!

As these escaping gases are very valuable, and as the amount of plaster now annually used for this purpose, amounts to a heavy item of expenditure in farm husbandry, the question is an important one.

That the plaster so used upon manures will absorb the ammonia, the editor of the *Maine Farmer* says he "has always considered to be the true doctrine, he having sprinkled it on fermenting heaps of horse manure, and thereby destroying the odor." He adds, "we have also scattered it in and about privies, and neutralized the offensive odors thereof, for a time, and without any further examination supposed the theory correct."

On the other hand, the editor of the *Rural New-Yorker* "denies that plaster will thus unite with ammonia, unless it be dissolved." To establish this theory he says a scientific farmer and writer took some plaster and guano and rubbed them together in his hand, and upon applying it to the nose, found that "instead of fixing the ammonia, the plaster aided the decomposition of the guano, and the ammonia was driven off with considerable rapidity."

The test was a simple one, but was it a fair one? Could a sufficient quantity of plaster be held in the hand to neutralize the odors of even a single thimble-full of so concentrated and powerful a manure as guano? We think not, and do not consider such a test as settling the question.

The editor of the *Farmer*, in support of his theory, quotes the experiments of another practical man, Professor CAMPBELL, of North Carolina, "by which it would seem that plaster in a dry state, does actually absorb, or rather decompose, carbonate of ammonia, while flying off from fermenting manures."

Mr. Campbell made an experiment which he says was conducted as follows:—

"A barrel was filled with fresh scrapings from the stalls of horses. Over the manure, as thrown in, a little ground plaster was sprinkled from time to time. After the barrel had been compactly filled, it was allowed to stand some weeks until it had gone through the heating process which always takes place when newly collected manure is thrown into heaps. But during this heating or *fermentation* (as it may with propriety be called,) there was none of that 'vapor' or strong odor which ordinarily arises from fermenting manure heaps. When the mass had become cool, clean rain water was passed through it and collected at the bottom of the barrel. This water was found to contain one of the elements of plaster, and one of the volatile substances (carbonate of ammonia) above alluded to. On emptying the barrel, a white powder, looking very much like plaster, was found mingled with its contents. But when tested, this powder was found to contain only one of the elements of plaster; while it contained also one element of the volatile carbonate of ammonia just mentioned."

We have great confidence in the theory of the editor of the *Farmer*, and that confidence has been gained by several years' practice of that theory. When the horse-stalls have been neglected, and the odor arising from them has become exceedingly pungent, we apply the dry plaster, and, *presto*, the stalls are sweet. And so of the cattle stalls, the cess pools, the drains, and any other olfactory nuisance that comes in sight.

This dry plaster, however, is never applied to dry substances. When thrown upon the horse and cattle stalls, the litter and the floor are wet; if they were dry, there would probably be no odor. But who has dry piles of manure in these days of inquiry and progress? Certainly not the man who is in the habit of using plaster. The dry heaps under the barn windows, resembling camel's dung that has bleached an age on deserts of sand, belong to men of another age, who laugh at you for expecting to find *virtue in stones*, and look upon *ammonia* as a cabalistic word, which, like Pandora's box, is filled with all manner of evil.

The theory of the editor of the *Rural New-Yorker*, in this view of the case, may be correct; we do not believe, however, that it is necessary to go to the trouble of leaching the plaster, and using the water thus impregnated with it.

The best mode of retaining the valuable properties of manures until they are wanted for use, is to apply to them daily, such portion of finely pulverized, old meadow muck as will take up the juices so that none of them will leach out. This muck is the cheapest, most accessible and convenient, and at the same time one of the most capacious absorbents and best deodorizers at the command of the farmer. Try it in the filthiest pool or on the most *fragrant* heap of offal you can

find, and see what a magic power it possesses! Keep a winrow of it in the cellar in front of the place where the droppings from the stall accumulate, and each day cover them so as to add as much again muck as there is of the droppings, and the whole mass shall be of as much value as the same number of loads of pure droppings, left

"To waste its sweetness on the desert air."

No man in this State was better qualified, we think, to pronounce an opinion upon this subject, than the late Mr. Phinney, of Lexington; no other person, probably, had used so much muck, or made so many careful experiments with it upon almost all kinds of crops. We have often heard him say that *three* loads of compost prepared as we have described above, was fully equal to three loads of the unmixed manure.

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*For the New England Farmer.*

## THE WAY TO MAKE A WIFE CHEERFUL.

I am aware that many husbands feel inwardly to complain because their wives do not always wear cheerful countenances. Now I would say to such that the fault is not in the wife, but in the husband generally. So far as my observations will prove, in nine cases out of ten, the husband is in the fault when things do not go right indoors. I am well convinced that there are those who have been husbands for years, who do not know, or rather who do not seem to know, what belongs to them as husbands. And for those of this class I desire to impart a little information, hoping that they and their wives may be benefited thereby; for I deem it indispensable to the happiness of a family to have the wife cheerful in and around the house-fire-side.

Now it is well known that many husbands will lie in bed in the morning, and allow their wives to get up and build the fires. In my opinion this does not belong to her to do, (unless her husband is indisposed.) It comes under the head of the husband's duties to build the fires, draw the water, and put on the tea-kettle; and further, when there are children, he should assist in dressing them; for there is nothing that will put a smile on the face of the wife like having a "good start" in the morning. And at all times during the day (whenever he is in the house), the husband should interest himself in the care and management of the children. Another thing will add greatly to the cheerfulness of the wife, and that is, always enter the house with clean feet. Tracks of muddy boots on a clean floor are very apt to put an unpleasant look on the face of a tidy wife; and well it may, for there is no need of a husband being so slovenly. No husband need be in so much of a hurry, or so negligent, but that he can clean his feet on the door scraper. Can not every husband see that a little neatness on his part saves labor to the wife? One thing more I will mention, which in my opinion tends very much to the object in question; and that is, for the husband to spend as much time with his family as possible, certainly his leisure hours. His house should be made the place of his evening's resort, and his time spent (if there is nothing else called for,) in reading interesting books to his wife and children.

There is much more which might properly be said, but I trust "a word to the wise is sufficient."

A. Todd.

*Smithfield, R. I., 12th mo., 1853.*

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## THE COLD FRIDAY OF 1810.

The 19th of Jan., 1810, was a day the intense coldness of which will be long remembered by those who experienced its rigor. Those who were not out of doors, but had reached an age rendering them capable of retaining impressions then received, have doubtless a recollection of occurrences taking place around them. The evening previous was as mild as those we have been favored with in such numbers this winter; but in the night the wind changed, the wind suddenly became cold, and the mercury in less than 16 hours descended to 13 degrees below zero. A boisterous wind prevailed, by which trees, and in some cases houses, were blown down, and the day became memorable in New England as "The Cold Friday." Here in Concord, so near as recollection serves, there was very little going from place to place. Farmers piled on the wood and attended to their cattle, and that was about all for the day. In this village, such as went to the neighbors or to a store, upon errands which could not be deferred, sped over the ground like squirrels, and were fortunate if they returned with no flesh frozen by the intensity of the frost.

From vol. v. of the New Hampshire Historical Society's Collections, the following account is taken of an occurrence on that day in the town of Sanbornton:

"On Friday morning, the 19th of January, Mr. Jeremiah Ellsworth, of Sanbornton, finding the cold very severe, rose about an hour before sunrise. It was but a short time before some part of his house was burst in by the wind. Being apprehensive that the whole house would soon be demolished, and that the lives of the family were in great jeopardy, Mrs. Ellsworth, with her youngest child, whom she had dressed, went into the cellar, leaving the other two children in bed. Her husband undertook to go to the nearest neighbor, which was in a north direction, for assistance, but the wind was so strong against him that he found it impracticable. He then set out for Mr. David Brown's, the nearest house in another direction, at the distance of a quarter of a mile. He reached there about sunrise, his feet being considerably frozen, and he was so overcome with the cold, that both he and Mr. Brown thought it too hazardous for him to return. But Mr. Brown went with his horse and sleigh with all possible speed to save the woman and her children from impending destruction.

"When he arrived at the house, he found Mrs. Ellsworth and one child in the cellar, and the other children in bed, their clothes having been blown away by the wind, so that they could not be dressed. Mr. Brown put a bed into the sleigh, and placed the three children upon it, and covered them with the bedclothes. Mrs. E. also got into the sleigh. They had proceeded only six or eight rods before the sleigh was blown over, and the children, bed and covering, were scattered by the wind. Mrs. Ellsworth held the horse, while Mr.

Brown collected the children and bed, and placed them in the sleigh again. She then concluded to walk, but before she reached Mr. Brown's house, she was so benumed by the cold, that she sank down to the ground, finding it impossible to walk any further. At first she concluded she must perish, but stimulated by a hope of escape, she made another effort by crawling on her hands and knees, in which manner she reached her husband, but so altered in her looks that he did not at first know her. His anxiety for his children led him twice to conclude to go to their assistance; but the earnest importunities of his wife, who supposed he would perish, and that she should survive but a short time, prevented him.

"Mr. Brown, having placed the children in the sleigh a second time, had proceeded but a few rods when the sleigh was blown over and torn to pieces, and the children driven to some distance. He then collected them once more, laid them on the bed and covered them; and then called for help, but to no purpose. Knowing that the children must soon perish in that situation, and being pierced to the heart by their distressing shrieks, he wrapped them all in a coverlet, and attempted to carry them on his shoulder, but was soon blown down, and the children separated from him by the violence of the wind. Finding it impossible to carry them all, he left the youngest, the one who happened to be dressed, placing it by the side of a large log. He then took them one under each arm, with no other clothing than their shirts, and in this way, though blown down every few rods, he arrived at his house, after being absent about two hours. The children, though frozen stiff, were alive, but died within a few minutes. Mr. Brown's hands and feet were badly frozen, and he was so much chilled and exhausted as to be unable to return for the child left behind.

"The wind continued its severity, and no neighbor called until afternoon, when there was every reason to believe the child left was dead. Towards sunset a physician and some other neighbors having arrived, several of whom went in search of the other child, which was found and brought in dead. The lives of the parents were saved, but they were left childless."

Mr. Brown, we are informed by a gentleman of Sanbornton, lived until a few years ago, but never recovered from the effects of that day. He became nearly or quite blind, and continued thus as long as he lived.—*N. H. Statesman.*

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*For the New England Farmer.*

## MEASURE AND WEIGHT OF MILK.

Mr. Editor:—Being under the necessity, by reason of the violence of the storm, of keeping close aboard, I was thinking of your neighbor's "butter stock," which yield a pound of butter, for each and every four quarts or gallon of milk, and the quere arose whether he reckoned 8 or 10 pounds to a gallon. The ordinary mode of reckoning has been after the English rule, 10 lbs. to a gallon—though this is not the standard rule, at present, in this country. Eight pounds is near the weight of a gallon—*wine measure.* I wish he would be particular in his information on this point, because it makes about *one-fifth part* difference, whether you reckon ale and beer or wine measure, one containing about 40 square inches more to the gallon than the other. This variety in measure produces great confusion of ideas—and demands precise regulation by law.

In looking at the statements of the several claimants for premiums on milch cows, in Worcester county, as recently published in the Transactions, I find the average product of the several cows presented, during the first ten days in June, 1853, to have been 40 lbs., or 20 quarts a day, to each cow. Now if *Worcester milk* is equal to *Middlesex milk*, this would give 5 lbs. of butter a day to each cow. The man who shall introduce a stock that shall do this, will be entitled to name it as he pleases. Am I wrong in my calculation? If I am, I should like to be corrected. Is he wrong in his statements? If he is, the sooner they are set right, the more to his credit will it be. I would cheerfully travel a hundred miles to see some of these "*gallon cows*" or "*butter stock*"—and whenever the owner has them prepared for exhibition, I think all admirers of good butter should be there to see.

Franklin.

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## THE PRESERVATION OF EGGS FOR WINTER USE.

It should be borne in mind, that eggs are mainly composed of albumen, mixed with a minute quantity of the salts of sulphur, phosphorus, lime, and magnesia. The shell consists mostly of lime. Of the whole weight, the shell constitutes about one-tenth, the white six-tenths, and the yolk three-tenths. Few animal substances are so putrescent as eggs, unless preserved with care. The shell, composed as it is mostly of lime glued together with a trifle of animal matter, is its most nutural and safe depository. Yet even the shell yields gradually to the action of the atmosphere, so that a part of the watery fluid of the egg escapes, and air occupies its place, thus injuring the quality of it. The great secret, then, of preserving eggs, is to keep the interior in an unaltered state. This is best done by lime water, in which a little common salt is infused. This constitutes a fluid perfectly indestructible by air, and one that is so allied to the nature of the shell as not to be absorbed by it, or through it into the interior of the egg. On the other hand, salt or lime, in a dry state, will act on the moisture of the egg, as will strong ashes. This plan, also, will save more eggs in a given space than any other. It will also admit of keeping them in cellars ever so damp, and, I had almost said, ever so foul, since nothing will be likely to act on the lime-water. As eggs are very nearly of the specific gravity of water, and so near with it I have little doubt that eggs barreled up tightly, in lime-water, could be transported as safely as pork. Lime-water may be made in the most careless manner. Seven hundred pounds of water will dissolve about one pound of lime. A pint of lime, therefore, thrown into a barrel of water, is enough, while ten times as much can do no hurt, and will not alter the strength of it. The salt, which I do not deem very important, should be put in a small quantity, say a quart to a barrel. All are aware that a very large quantity of salt may be dissolved in water. Brine, strong enough for pork, would undoubtedly hurt eggs. Having made your lime-water, in barrels, if you are a merchant, and in stone pots, if you are a small householder, drop your eggs on the top of the water, when they will

settle down safely. It is probably important that no bad eggs go in, as it is supposed by some that they would injure others. To test your eggs put them in clean water, rejecting all that rise. A better remedy is to look at them through a tube —say a roll of paper—by day-light, or hold them between your eye and a good candle by night. If the eggs are fresh, they will, in either case, look transparent. If they are little injured, they will look darkish. If much injured, they will look entirely dark. Eggs, well put up and kept in this manner, will keep, I cannot tell how long, but until they are much more plenty and cheap than at present, quite long enough. Leached ashes well dried, and even grain, have kept eggs very well, in my experience; but no method is so cheap and obvious as the lime-water. As lime absorbs carbonic acid slowly, and thus becomes insoluble, so almost any lime, even though it has been slacked for months, will answer the purpose. Lime-water, permitted to stand still, will immediately be covered with a transparent film. This is the lime of the water uniting with the carbonic acid of the atmosphere, and returning to the state of lime-stone, and does not hurt the eggs.—*Mark Lane Express.*

## TO FARMERS.

Neat be your farms: 'tis long confessed
The neatest farmer is the best.
Each bog and marsh industrious drain,
Nor let vile balks deform the plain,
Nor bushes on your headland grow,
For briars a sloven's culture show.
Neat be your barns, your houses neat,
Your doors be clean, your court-yards sweet;
No moss the sheltering roof enshroud,
Nor wooden panes the window cloud;
No filthy kennels foully flow,
Nor weeds with rankling poison grow;
But shades expand and fruit trees bloom,
And flowering shrubs exhale perfume;
With pales your garden circle round;
Defend, enrich, and clean the ground;
Prize high the pleasing, useful rood,
And fill with vegetable good.

## THE ATMOSPHERE AND ITS EFFECTS UPON ANIMAL LIFE.

A very interesting lecture was delivered by Dr. Griscom at the New York Mechanics' Institute, on the "Influence of Air in connection with Animal Life." Some of them would be surprised to hear that they lived at the bottom of an immense ocean of air fifty miles deep; yet it was so, and the color of this ocean, which is called the atmosphere, is a deep cerulean blue. To perceive this it was necessary to be able to see at once the whole volume, and also on a calm and clear day, for no color could be perceived if seen in small quantities, or when there was either wind or haziness. In like manner the color of water could not be seen in small quantities, and was only perceptible where there was a vast expanse of ocean. The air was also a substance capable of condensation and expansion. Its expansion was seen in the winds, by which ships were made to traverse the ocean, and also in windmills. The tornado was another phase of its expansion, by which trees were uprooted and houses overturned, and was almost equal to the power of steam. The greatest weight of the atmosphere was fifteen pounds to the square inch, and this weight presses on every way, both upward and downward. To explain the pressure upwards, the lecturer exhausted the air out of a large vase, which then remained fast to the plate on which it stood, but on the air being let in it was easily removed. I remember, said he, being asked the question, if there is a pressure of fifteen pounds to the square inch, the reason why we were not at once crushed by the weight; but this is, as I before explained, because the air presses in all directions with the same equal force, and hence there is an equilibrium. This is a most important element, and one that requires to be known, and also that the air never presses more than fifteen pounds to the square inch.

The next quality of the air is elasticity. Press it to make it occupy a smaller space than it otherwise would, and then take away the weight, and it comes back and occupies its original space. The lecturer then explained that in the air there were two gases; one oxygen, which is that part of the atmosphere by which chiefly we live, and which is the one-fifth part; and the other nitrogen, which is four-fifths of the atmosphere. Oxygen supports life and combustion, and nitrogen restrains its effects and dulls its operations. The quantity of air which a person consumes depends in a measure on one's self, and by training can be made more or less. The tailor and the shoemaker take little in comparison with the laborer, and the public speaker or singer, or those who cry commodities for sale through the streets. A man in good health makes eighteen respirations in a minute, and in twenty-four hours consumes fifty-one hogsheads of the air. As the oxygen which supports life is so small, we ought to be very particular how we permit other gases to mix with it and vitiate it. The blood when it enters the lungs is black, but when the oxygen acts on it, it becomes red, and sends it through the veins to impart life and animation. This black blood is produced by carbon, and imparts the blackness which we see in the face of persons who lose their lives by suffocation, because the air was not allowed to reach the lungs to purify it. When we send out the air from the lungs, we do not send it in the same manner as we inhaled it, for when exhaled it is as deadly a poison as arsenic or corrosive sublimate. The lecturer showed this by experiments, and filled a vase with his own breath in which a lighted candle would not live. It was such air as killed persons who went down into wells in the country, or who died when a pan of charcoal was placed in a room. The danger of taking impure matter into the stomach was not so great as into the lungs, for the stomach had power to eject impurities which the lungs had not. Besides the impure air which we exhale there are 2,800 pores on every square inch of the surface of the body, and to a body of large size there are 2,590 square inches; and these multiplied make 7,000,000 of pores. There is a sort of drainage pipe in the body, which sends out matter as well as gas, and this pipe is calculated at twenty-eight miles long. The particles of matter which are sent out and which do not dissolve, are so numerous, that in China, where the houses are low, and a great many persons are in the habit of assembling in one room, it has

been discovered that, after fifteen or twenty years, these particles adhere to the ceiling of the rooms, and the farmer will contract to put up up a new ceiling if they are allowed to take down the old one, so valuable has it been found for manure.—*Scientific American.*

## ZINC PAINTS.

We are glad to find this new article coming into very general use wherever it can be obtained. Some of its principal merits are thus summed up in one of the Circulars of the company engaged in manufacturing it:

The following facts, which are the result of accurate experiment, show that zinc paints are much cheaper to the consumer than lead:

100 lbs. white zinc paint will cover, when applied in three coats, on new work, as much surface as 166⅔ lbs. pure white lead; but, estimating that it will cover but fifty per cent. more surface, and that it sold at the same price per pound as pure white lead, then the cost would be just two-thirds the cost of lead; to say nothing of the durability and beauty of zinc paints.

This argument (their relative cheapness) alone should decide the question in favor of the use of zinc paints; but their other merits are of more importance.

White zinc, even when exposed to coal, gas, bilge water and sulphurous vapors, retains its original brilliancy and whiteness; white lead quickly turns yellow.

Apartments *just painted*, may be slept in with impunity; whereas, according to the best authority, rooms should not be used for sleeping apartments for two or three months after being painted with lead.

The agents of the company have issued the following directions for using it:—

The paints manufactured by the N. J. Zinc Co., and ground in oil, are to be used precisely like white lead, thinning it for outside work with light colored linseed oil, and for inside use with spirits of turpentine or oil, having enough sicative mixed with the paint in the keg to make it dry for twenty-four hours. In winter a small quantity of zinc dryer, or any of the ordinary dryers, may be added.

For Porcelain Finish.—Thin the zinc, *ground in varnish*, with enough Damar varnish to make it work free, and apply it only on a *pure white ground*, recently painted with zinc and thoroughly dried. If the first coat does not produce a sufficient gloss, apply a second.

On new outside work, it is recommended to apply a coat of gum shellac, to prevent the sap or pitch of the wood from staining the paint, made as follows: To 1 gallon alcohol, add about 2 lbs. gum shellac; dissolve by a gentle heat, then add about 2 lbs. dry white zinc, and strain before using. It will dry in five minutes, and will pay the cost of its application, by the saving of paint in finishing the work.

White Zinc Paints should be kept in a dry place, never be covered with water in the keg, as it will cause the paint to harden.

Fifty pounds of zinc will cover as much surface as 70 to 90 lbs. of lead, according to the nature of the surface and style of work.

The paints *ground in oil*, are put up in kegs of 25, 50, 100, 200 lbs. and upwards.

Ground in varnish, in cans of 10 to 25 lbs. each.

Dry white zinc in barrels of 200 lbs. each.

PRICES.

| | |
|---|---|
| No. 1, or Snow White, ground in Oil, ₩ lb | 9 cents. |
| No. 2, or Silver White ground in Oil | 8 cents. |
| Brown Stone Color, ground in Oil | 6 cents. |
| Brown Zinc, ground in Oil | 5 cents. |
| White, ground in Varnish, for Porcelain finish | 15 cents. |
| No. 1, or Snow White, in bbls. of 200 lbs | 6¼ cts. |
| Zinc Dryer, ₩ gallon | $1.50 |
| Damar Varnish, (White Varnish) ₩ gallon | 1.75 |

## TRANSACTIONS OF WORCESTER AGRICULTURAL SOCIETY.

We acknowledge the receipt of a copy of these Transactions, from the attentive Secretary of the Society, William S. Lincoln. We have not yet had opportunity to look over its pages. The following remarks are from one of our most observing correspondents in Essex County.

"As in the *beginning*, so *now*, the name of Lincoln is conspicuous upon its pages. It is gratifying to witness the efforts of distinguished gentlemen to instruct their fellow-citizens. This remark is elicited by the perusal of the Report on Milch Cows. In these days of fancy estimates, it is salutary to return to sober instruction. Few men have had better experience in this matter, than the author of this paper. He says, 'we wish only to suggest, that what has been done *elsewhere*, may be done *again*, and *here*,—and that with judgment in the selection of stocks, and care in the rearing, as fine animals, of any race, may be found on our farms, and seen at our shows, as ever graced the Cattle Fairs of England.'

Numerous other papers, in this neatly arranged publication, will be perused with instruction. In some of them attempts at *wit* are apparent. This is a dangerous article to meddle with. Unless carefully *spiced*, it soon becomes *stale*. In the hands of a *Lincoln* and *Poole*, wit is acceptable; but when forced in, it nauseates. We perused the learned and eloquent address, before this Society, and while we were instructed by the author's remark on titles to estates and the principles of free trade, we could not but think it better fitted to some other *arena*, than a Cattle Fair."

## DON'T PULL OFF THE SUCKERS!

Messrs. Editors:—In the *Country Gentleman* of week before last, I noticed an inquiry with regard to the propriety of pulling off from the Indian corn, the scions commonly called suckers. In my opinion, neither do the advocates for pulling off nor those for allowing them to remain, give correct reasons for their practice. Indeed, I have never known a farmer intelligent on this subject, nor have I any confidence that experiments conducted as proposed in the article referred to, will lead to any practical results. A little observation, science will give us more useful information on this subject, than years of experiment without it. That the suckers have an important office to perform in the production of the corn crop, and, therefore, should be allowed to remain, will, I think, appear from the following consideration.

The Indian corn (Zea mays) is a monœcious plant, that is, the staminate and pistillate blossoms occupy different positions on the same plant. The tassel, as it is commonly called, is the staminate blossom, and furnishes the pollen by which the silk is impregnated, and the new kernel is produced. The cob which bears the silk or pistillate blossoms, is in process of elongation after the pollon or dust has disappeared from the tassel. Just at the point where more pollen is needed to impregnate the silk at the end of the cob, the suckers and abortion stalks supply it, thus filling out the cob with kernels to the very tip or end. Where the suckers have been pulled off, it will be found that one or two inches of the cob is barren, thus causing quite a diminution of the crop. What amount of diminution the crop may suffer, I am not able to say definitely, but give it as my opinion at least, from a twelfth to a fifteenth part. If these suggestions appear of any value, you are at liberty to publish them, hoping they may be remembered until another year comes around.

Yours, &c., W. H. Scram, *Sand Lake Academy.*
—*Albany Cultivator.*

## BUTTER AND CHEESE.

We give below a portion of the Report of the Committee of the "Rhode Island Society for the encouragement of Domestic Industry, on the subject of Butter and Cheese. We are under obligations to Stephen H. Smith, Esq., the Secretary, for copies of the Transactions of that Society.

From these experiments it is shown that to obtain the best of sweet butter that will keep for a greater length of time than any other without being rancid, we must churn sweet cream—that if the butter-milk is valuable in market, and the butter can be disposed of soon after it is made, there will be the greatest gain by churning the sour milk and cream together—that by scalding the milk and then taking off the cream, the milk is best for market—although the yield of butter is greatest, and the flavor good, it must be put in market direct from the churn and consumed without delay or it becomes rancid and worthless;—that in proportion to the quantity of butter produced from the cream of a given measure of milk, reference being had to the length of time the cream is suffered to remain upon it, will be its liability to become soonest rancid;—that the excess of weight as exhibited above is to be attributed in a great measure to the absorption and combination of caseine (curd) with the oleaginous (oily) portions of the cream;—that the prevalence of caseine, although it is not objectionable by imparting any unpleasant flavor while new, renders the butter of less value, as it soon grows rancid; and for the further reason that it is used, necessarily, more profusely than new butter, which has less curd in it. It has been fully proved that milk contains on an average only one per cent. more curd than butter.

Dumas says, "that the facility with which butter becomes rancid, depends on the presence of caseine, (curd) from which it is necessary it should be separated in order to its preservation."

This can be effected by fusion (melting). For exportation to hot climates, or for the purpose of preserving early-made butter sweet through the heat of summer for winter's use, it should be clarified before salting or much working. For this purpose it is put into a lipped vessel and placed in another of water, which is to be gradually heated, till the butter is melted. Care must be taken not to over-heat it; it must be kept melted until the curd and butter-milk have settled; the clear melted butter is then poured off from the sediment into small white kegs, containing from twenty to thirty pounds each, or into maple cannipails, of Shaker manufacture, for family use. When sufficiently cooled, and before it hardens, it may be salted with less than half an ounce of fine *rock salt* to the pound, but as it is difficult to incorporate the salt well, the salt may be omitted and the butter will keep perfectly sweet. What butter remains in the vessel will rise to the top, and harden like tallow; when taken off the amount of curd and butter-milk will appear. You will then have the pure article, equal to the best of table butter for all the purposes to which sweet oil (as we get it) or drawn butter is applied—it is perfect for shortening—melt it in milk instead of water. It is not suitable to spread cold on bread.

One of your committee in the warm season last year, took seventeen pounds of sweet salted lump butter and proceeded as above directed. What settled at the bottom after melting, was composed of two ounces of limpid whey, two ounces of fine salt, and twelve ounces of curd, in all one pound. Had this curd not been extracted, the whole long before this (2d of Feb.) would probably have been rancid. The experiment proved perfectly satisfactory, and is recommended to the public. Store-keepers back in the country who take in butter, would find it to their account by putting it in practice, thereby diminishing the amount of "grease-butter" sent to market.

Adulteration of Milk, from *Bowman's Medical Chemistry*, as published in the *Providence Journal*, some time since;—"We have no chemical means of ascertaining whether water has been fraudulently added to milk; the only effect being to dilute it and render it of poorer quality. A knowledge of the specific gravity cannot here be made available, since the abstraction of cream, which has a lower specific gravity than milk, may be made to neutralize the effect produced by the addition of water,—the tendency of the removal of the cream being to raise the specific gravity, or weight of the milk, and that of the addition of water to lower it. A specimen of milk, therefore, which has been impoverished by the abstraction of cream, and still further weakened by the addition of water, may be made to possess the same specific gravity, or weight, as it had when taken from the can."

The average product of cow's milk is 15 per cent. of cream by the lactometer.

It is of quite as much importance to ascertain the average product of curd; but this can only be done by actual experiment, as no instrument will show it, Liebig says the nutriment in milk depends on the amount of curd it contains; and not on the amount of butter. An experiment was tried by feeding a dog with butter only; he became very fat, his hair was saturated with grease and he died at the end of thirty days. Those who were opposed to this view of the subject repeated the experiment and the dog survived, but this result was attributed to the great amount of casiene (curd) contained in the butter.

If the object of a Dairy be to make Cheese, cows should be bred and selected that give milk rich with curd; if the object be Butter, those that give a light milk will produce most; but if the object being the greatest profit in selling milk, such cows should be selected as will give the most milk and from which the least butter and cheese can be made from a given quantity.

It is a remark often made, and with truth, by those who have the care of dairies, that there are individuals among their cows, whose milk yields little or no cream, but abounds in curd; while the milk of others is very deficient in curd, but is not lacking in cream. The perfection of milk is the union of these two desirable properties, and its greatest defect in the absence of both.

A cubic foot of pure water weighs 1000 ounces avoirdupois very nearly.

The weight of all substances, except the gases, (all being brought to one temperature,) is, in relation to that of pure water, whose specific gravity (weight) is represented by unity, or one, thus:

| | |
|---|---|
| | 1.000 |
| Butter is lighter | 0.942 |
| Cream " | 0.980 |
| New milk average is heavier | 1.028 |
| Skim milk " " | 1.038 |

In a former communication on the subject of Butter making, we disapproved of the practice of adding water to the cream, and of washing the butter, to rid it of its butter-milk. The carbonate of lime, found in water, causes the incrustation, which forms on the inside of utensils in which it is boiled. Butter absorbs the lime and magnesia, present in salt and in water, when it comes in contact with them; it has an injurious effect on its quality and preservation. It is therefore in all cases safest not to wash it, even if the water be pure, it will in a measure destroy its fine fragrance and flavor.

The use of pure salt cannot be too often recommended to those who have dairies in charge. More than a million of dollars can be annually saved to our farmers in this country by attention to this point. No one denies that good pure salt is made at our salt springs by solar evaporation, if taken from the first pan where all the crystals are perfectly square; but this salt comes to the consumer with various degrees of adulteration; and is therefore cheap, as to the first cost. After the square crystals of pure salt have ceased to form; then, by further evaporation the salts of magnesia and glaubers salts begin to show long needle-shaped crystals very bitter to the taste; easily dissolved and always found moist in damp weather. It will not preserve fish or meat, and when used for butter, will dissolve and run from it like water.—Whereas rock salt gives it firmness, which facilitates the extraction of butter-milk and preserves it sweet. Many bags marked rock salt, have been filled more than once; and many others never came in contact with it. Let the farmers club together, and send to a sea-port and get the best of Rock salt, sift out the fine, wash and dry the lumps, and have it ground at any gristmill in the neighborhood, as our fathers did, before the introduction of the very improved fine Liverpool bag or blown salt.

For the Committee, STEPHEN H. SMITH.

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THE POTATO ROT.—Eli Demeritt, of Strafford, and Aaron Bridge, of Nottingham, write us that they have discovered the rot in potatoes to be caused by an insect or maggot which eats into the potato, near the root or stem and poisons it. They made this discovery last fall, while digging their potatoes, and have since frequently found the maggot in those which were diseased. They recommend as an effectual remedy the application of a spoonful of sulphur to the vines of each hill when the potatoes are hoed. Our correspondents are good practical farmers and may be right, but the experience of more than one season will be necessary to establish the fact.—*Dover (N. H.) Inquirer.*

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*For the New England Farmer.*

## POOR LAND MADE RICH WITHOUT ADDING MANURE.

As this is rather a new theory, some may ask how is it possible to make poor land rich without putting on manure? I answer, by shading it. But my opposer may say if shade makes land rich, why does not the soil under large trees become extremely fertile? To this I answer as follows: the growth of the tree is constantly exhausting the soil, and if the shade did not tend to fertilize, the soil would soon become so impoverished that unless manure were artificially added the tree would die. If any one wishes to be convinced of the truth of this theory, let him try a piece of poor land in the following manner; cover it all over with brush three feet deep, let it remain covered four years, then remove the brush, and he will find that the soil has become rich although no manure has been added; at the same time let him leave a piece uncovered by the side of it, so as to see the difference.

Every intelligent farmer in the New England States knows that if he crops a field for twelve or fifteen years in succession without adding manure, the land will become so impoverished as to be almost worthless; but he may enter the forest and examine the soil which has been exhausted by the growth of timber for hundreds of years, and he will find it is still very rich. Now I ask, how the fertility has thus been kept up, if the shade does not tend to fertilize? My opposer may say it is kept up by manure made from the leaves of the trees. I will admit that the foliage tends to fertilize, but as the quantity of matter returned to the soil in this way is so small compared with what is taken up by the growth of the timber, it is very evident to every wise husbandman, that there must be another great source of fertilization, or the soil would soon become exhausted. I have about come to the conclusion, that of all the changes which vegetable and animal substances undergo during their decomposition, the product of the one only which has proved to be the aliment of plants, is the residue of putrefaction. I also think that a close, cool, dark and damp location, with a contact of air, is indispensable to the generation of the putrefactive process. Putrefaction may be considered the ultimate result of vegetable and animal decompositions, because it forms the only product incapable of any other change. The surface of the earth will readily undergo the putrefactive process, if favorably located, that is, if densely shaded. Dr. Baldwin says that the fertility imparted to the earth by shade, that is manure made of the earth itself, is more durable and therefore more valuable, than that made of any other substance whatever. He says no animal or

vegetable substance can properly be called manure, until it undergoes the putrefactive process, because it is not fit for the food of plants until it goes through this process.

Some farmers that do not well understand this new system may ask this question; how can straw benefit land when spread upon its surface? you have said that it cannot act as a manure because it has not been through the putrefactive process. I answer by shading it. You may ask farmers that are in the habit of raising flax, and rotting it upon their own land, if the grass is any larger where the flax lay than elsewhere; they immediately answer yes. Ask them why it is larger, they say the flax has manured the land? Ask them how has it manured the land? And not more than one in twenty can tell you.

Some have advised farmers to draw leaves from their woodlots to convert into manure; but I think this will not answer in all cases. Suppose a man has a very small woodlot, scarcely enough for the use of his farm; if he draws manure from this it will diminish the growth of his timber, which will be a damage to his farm. In other words, it may turn out like this: a certain man had a garden which was very rich, but the rest of his farm was very poor; he drew fifty loads of the soil of his garden and put it upon his poor land, which had a very good effect on that, but it ruined his garden.

The cheapest and best way that I can think of to shade land, is with clover. Seed your land thick with clover, and let it grow as large as possible without feeding it off; (for the more dense the shade, the sooner the land becomes rich;) let it remain shaded in this way for three years; then you may remove all the clover if you wish, and plow up the soil, and you will find it has become rich, although no manure has been drawn into the field. Let this much suffice at this time. He that rejects this, would reject more of the same doctrine.

Elihu Cross.

*Hoosick, Renss. Co., N. Y.*

## NATIONAL AGRICULTURE.

The total value of the annual products of the soil of the United States is now about One Thousand Millions of Dollars; and no one who knows what Science *has done* for Agriculture will doubt that the same amount of labor which is now employed in producing this aggregate, might be so applied as to secure a total product thirty per cent. greater, or One Thousand Three Hundred Millions. But scientific, skilful, thorough Agriculture, always employs more than the shiftless, slouching sort too generally prevalent; and it is certainly within bounds to estimate that our Agriculture might be so improved as, by the help of additional labor now unemployed and unproductive, to give an additional product of fifty per cent., or Five Hundred Millions per annum—an achievement which would double the wealth of the country every eight or ten years. Whosoever will carefully review the Agriculture of a single State, or even an average County, in any part of the Union, and estimate how much its product might be enhanced by Irrigation, Manuring, Deep Plowing, Draining, &c., will perceive that our calculation is far within the truth.

But suppose that only half of it, or an addition of Two Hundred and Fifty Millions per annum to our annual Agricultural product, is attainable, what an immense addition to our national wealth would thereby be insured! Four-fifths of this would probably be permanently added to the wealth of the country—that is, the farmer whose annual product should be swelled from $1,000 to $1,250, or from $2,000 to $2,500, would not eat or drink the surplus, but would invest the greater part of it in new buildings, fences, barns, implements, furniture, &c., &c., giving profitable employment to mechanics and laborers, and largely increasing the business of merchants and the income of professional men. Such an addition to the annual product of our Agriculture would increase the consumption of Manufactures, domestic and imported, in far greater ratio, since from the annual product of every farm the food of those making a living on it must first be taken for home use, affording no business or profit to any one else, leaving only the surplus to form the staple of trade; and an addition of twenty-five per cent. to the annual product of each farm would probably double the annual exchanges and general trade of the country.—*N. Y. Tribune.*

*For the New England Farmer.*

## TYING UP CATTLE.

"I also will show mine opinion."—*Job* 32: 17.

Mr. Brown:—Dear Sir,—There are remarks from your pen, in the *Farmer* (Nov. 26th), in answer to J. Dimon's question, of Wakefield, R. I., as to the "best method of securing cattle in the barn," from which I beg leave to dissent.

That stancheons may secure cattle more safely, as far as getting *loose* is concerned, I do not doubt; but for practical *use*, *i. e.*, for tying up oxen and cows, I dislike them very much.

To tie up oxen that work the live long day, and have them hang by the head all night, with scarce an inch play of room for turning to rest their aching necks, is bordering *hard* on cruelty, in my humble opinion. If the stancheon is put up exactly perpendicular, it is hard to lie down and get up in, and the position is hard to rest in. If the upper end stands towards the cattle, it is hard to feed in, as they can reach but a short distance for their food, unless they get down on their knees. I have seen cows, before they had got fairly accustomed to them, spring quite a number of times before they could get up. In the act of rising, they first start up on their knees, then spring forward to raise their hind parts, and in so doing their shoulders strike the stancheon, and the concussion is so great as to knock them back several times, before they can balance themselves in that confined position, so as to get up. When cattle are lying down, they hang with their horns against the stancheon, and their necks stretched to the utmost extent, and there they must remain, without the power to raise or lower the head.

Young cattle might be tied in stancheons, and stand with safety nearer together than when tied with ropes or chains, were it not for spoiling the shape of their horns, or at least badly injuring them. *This* with me is a serious objection; for who does not like to see a handsome pair of horns, on a cow even, and much more so on oxen!

As far as I am able to judge, chains fastened

around the neck with a spring hook or snap, are the easiest for the cattle, the safest, all things considered, and the most economical way of securing cattle in the barn. I have used them several years, and find them very convenient, and easy for cattle to repose in, and would advise any one who has stancheons now in use, to change them for chains the earliest opportunity.

As the swallow controversy appears to be agitated at times, I will add that I saw them quite plenty in Wilmington, Vt., the 30th of August.

Yours ever, with respect,

J. E. BLAKE.

*Warwick, Me., Dec.* 12, 1853.

REMARKS.—We agree with you that chains give the cattle more liberty when standing, and more ease when lying down, than they can have in stancheons. Yet we changed from chains to stancheons, and so have most of the farmers in this vicinity, thinking the latter the best, all things considered. Thank you for your article, and hope to hear from you again.

*For the New England Farmer.*

## FEEDING STOCK.

MR. EDITOR:—The season has again arrived when stock must be housed and fed; and although the weather has been so mild that stock have found nearly, if not quite, all their living in the fields and pastures, up to within a short time, still, the amount of hay on hand is not large for the season. It therefore behooves every farmer to make the most economical disposition practicable, of hay and other fodder. Last year the supply of hay was still less than this, which induced me to adopt a system of feeding with a view to determine, if possible, the most economical disposition of fodder. Much has been written, and many valuable suggestions made through the *Farmer*, upon this topic. Yet many farmers still doubt whether any improvement has been made in this branch of their business. The method I adopted, and its results, I will endeavor to give for what they are worth.

The stock fed was eight cows and four oxen. Four of the cows gave milk all winter, and four came in, in February and March. I commenced my plan of feeding, December 1st. To each of my four milch cows, I gave nine pounds of common meadow hay, cut and wet with scalding water, to which was added two quarts of *fine feed*—and fed out as warm as might be night and morning. My dry cow I fed the same, minus one-half the *fine feed*. My oxen were fed the same (they were not worked any to speak of) only substituting cob meal for the *fine feed*, and part of the time substituting the same bulk of cut corn stocks instead of the meadow hay. At noon time I gave all round a small foddering of cut corn stover. Up to December first, I fed my milch cows on uncut English hay. Upon the warm, cut meadow hay and *fine feed*, my cows immediately increased their milk and kept through in first rate condition. My oxen gained flesh all winter, and at spring were fair beef.

The cows that came in in February and March were fed in the same manner, only substituting half English hay. All the fodder was measured at every feeding through the winter. The small quantity fed at noon, I counted equal to two pounds of hay. At the latter end of March, my meadow hay was all exhausted, when I fed my milch cows wholly with the best of clover hay, cut and served up as before, reducing the quantity of *fine feed* one-half. My cows soon fell off in their milk.

It is generally understood, I believe, that the average of milch cows, require twenty-five pounds of English hay per day in order to keep in good condition. Taking this for granted, we have the following as the results of my experiment:—

Twenty-five pounds of English hay,—worth on an average $13 per ton, or 6½ mills per pound equal to 6½ cents. Twenty pounds meadow hay, worth ordinarily $6 per ton, or 3 mills per pound, equal to 6 cents—two quarts *fine feed*, worth forty cents per bushel, equal to five cents, making eleven cents, which substracted from 16½ cents, leaves 5½ cents gain per day for each cow by the latter mode of feeding. It may be said, this gain is not sufficient to pay for the fuel to heat the water and the extra labor involved. If five cents per day for each cow was all the advantage to be found in this disposition of fodder, I grant it would "hardly pay," but there are other and quite important gains—the most essential of which is an increased quantity of milk; and cattle fed in the way proposed, are kept in much better condition, and are therefore worth more in the spring; especially is this the case with cows, as it makes quite a difference in their value, whether they have got to appropriate the larger part of their summer feed to restore the flesh lost in winter, or whether the principal part of their food shall go to the production of milk. Again, with a little extra labor and a small outlay for grain, more stock can be better wintered. Stock, too, fed with a regular given quantity, (varying only to suit the emergencies of temperature) affords a satisfaction to the feeder in knowing *when* his stock is *sufficiently* fed, which every good farmer knows the worth of. There are other considerations in connexion with this subject, which I should like to advert to, but must defer to some future time.

T. A. S.

*Westboro', Dec.*, 1853.

REMARKS.—We shall be very glad to hear from you often. The above is worthy of careful consideration.

## HOW MUCH SUGAR DO WE EAT?

Last year there was consumed *in this country* about 750,000,000 lbs. of cane sugar, and 27,000,000 lbs. of maple sugar. This gives more than 24 pounds of cane sugar, and one pound of maple sugar to every man, woman and child. This does not include molasses or honey. If this sugar was put into barrels holding two hundred pounds, and each barrel occupied a space of three feet square only, it would require 336 acres of land for it to stand upon. The barrels, if placed in a row, would reach two hundred and twenty miles. If this sugar was put up in paper packages of five pounds each, it would require 146,400,000 sheets of wrapping paper, and if only a yard of string was used to each package, there would be required

439,200,000,feet, or 83,000 miles of string—three times enough to go around the earth. If every retail clerk sold one hundred pounds of sugar each day, it would require nearly 25,000 clerks to sell it all in the year. If the dealers, wholesale and retail together, made a profit of only two cents a pound on this sugar, these profits alone would amount to nearly $15,000,000. Can some of our young school friends tell us how much tea this would sweeten!—*American Agriculturist.*

## EFFECT OF RAILROADS ON FARM PRODUCTS.

The annexed paragraphs are from an Address by GEORGE F. MAGOUN, Esq., delivered before the Des Moines Agricultural Society, in Iowa, as we find it published in the *Iowa Farmer.*

I naturally mention here, as a great aid to agriculture, improved roads. Plank and railroads are simply science applied to locomotion. Why is a farm on a railroad worth ten times as much as one 50 miles distant? Because its products can be carried swiftly and cheaply to a dozen of the best markets, while the latter is confined to one, and that a poor one.* Railroads have increased the amount of milk bought in Boston fivefold, and advanced pasture land 130 miles from New York 600 per cent: Property in 70 counties of Michigan has increased in value in a term of years $55,000,000,but three-fourths of the increase has been in those 12 counties which are traversed by railroads. The Illinois Central will add $40,000,000, the Burlington and Missouri R. R. will add $15 or $20,000,000 to the worth of the lands over which it passes. You can raise a better and surer fruit crop than the orchardists of western New York, but theirs is hurried by steam to the best markets in a few hours, and sold three or four times while you are getting yours to a poorer market. Chicago has been supplied with peaches, &c., this season from Alton; another season and our own county will pour into that market, and the noble orchards and nurseries which flank our beautiful Orchard City will rise to the value of a near neighborhood to the Garden City of the Lakes. Some of you will yet send off your apples, wheat, pork, potatoes, beef, mutton, to the Lake, and they pass from your doors by rail, and get your advanced price, and on your return pass an old fogy neighbor trundling his into town in his slow and ancient wagon.† Michigan farmers changed the balance of trade in favor of the State $2,006,000 one year, by putting in more wheat; but without a quick run to market their excess of wheat would have rotted on their hands. Without railroads it would take 2 months, at $50 or 60 a head to get beeves from the West to New York, and they would arrive unsaleable. Now they go in 7 days, in prime order, at a cost of $10 or $12, and at the rate of 22,000 a week: they go even from the Cherokee nation, west of Arkansas, marked with the hieroglyphics of the Indians who raised them. A Des Moines county farmer has proved it will pay *here* to raise stock for the shambles of the Atlantic cities. One advantage of railroads is the dressed meats that can be conveyed 1000 miles fresh, leaving hides, horns, offal, &c., behind for fertilizing and other purposes. Ohio dressed meats are now on the tables of New York city. Another advantage will be that artificial fertilizers can be brought to us cheaply when we know how scientifically and profitably to use them. Railroads decrease the fluctuations of markets it; will not long be true that "ten wet days in England derange the exchanges of the world." They improve the outward aspect of the country—farms which are under the eye of passing thousands daily are neater, cleanlier, and more tasteful—perhaps the occupants are also! I would not say *how much* our railroads, east and west, will make us prosper, but I will say that the men are now here in middle age, who, before their white hairs are harvested by death, will see the fruit and grain and cattle of Southern Iowa and the Platte Valley become an important offset in New York to our purchases of English, French, and German goods, and in the Pacific ports to our importations of silks from India, and teas and porcelain from China and Japan.

* A ton of corn is estimated not to be worth hauling by a wagon when 170 miles from market; while at the same distance upon a railroad it would be worth $22 10. A ton of wheat 330 miles from market is not worth the hauling by wagon, but by railroad it would be worth $44 35.

† A single hotel in Chicago consumed daily 125 dozen eggs, 200 chickens, 68 bushels potatoes, 200 pounds butter; $250 is paid monthly for milk, $300 for bread, $960 for meats, &c. Would our farmers have here such markets for their small produce and grain? LET THEM HELP THE RAILROADS, AND THE RAILROADS WILL HELP THEM.

*For the New England Farmer.*

## BEE CULTURE—NO. 1.

In this and subsequent communications which may be furnished, I propose to invite attention to a most interesting and profitable branch of rural industry. In so doing, I would not be understood as calling the attention of agriculturists alone to this subject. The impression has too long existed that the cultivation of the soil alone, or especially, is concerned in the management of the Honey Bee. There are very many individuals in every community as well situated, to say the least, as the husbandman, for successful prosecution of this enterprise. It is not an enterprise which requires great capital or great muscular energy or great extent of territory, as personal possessions. Any individual, however limited his resources, who has command of a little leisure,may share in the luxury and profits which result from the labors of the Honey Bee, and the amount of time required in the various operations of Bee-culture is much less than is generally supposed. There are ten months of the year during which Bees may be said to take care of themselves; that is,the attention which they need is very trifling. The aggregate degree of attention which a dozen swarms of Bees require during the year is less than a dozen house plants, or a single canary,bird would necessarily demand. The time is at hand when professional men and young persons, and even females and aged persons who are much at home, will be among our most successful Bee-keepers; to say nothing of the mechanic, who being much at home is peculiarly well situated for giving attention to this enterprise. When the subject shall be properly understood, especially when the lesson shall be effectually learned, which some have learned, that the Honey bee can be domesticated or rendered manageable, as truly and almost as safely as any other creature which is made for the service of man, or as

safely as the cow or the horse, Bee-culture will be greatly increased. Then it will be regarded in its true light as affording ample remuneration to those who enlist in it. The profits resulting from a judicious and proper system of Bee-culture may be safely estimated at from 100 to 500 per cent. per annum. In this statement I give merely the results of my own experience in Bee-keeping for a period of 12 years. There is no living creature which is subject to the control of man which pays so large a profit upon the capital invested and the time employed, as the Honey Bee, when a proper system of Bee-culture is adopted.

*North Bridgewater, Mass.*

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*For the New England Farmer.*

## FARM ACCOUNTS---RECLAIMING SWAMPS.

BY HENRY F. FRENCH.

What have rational men a right to expect from any department of labor which occupies a large portion of the community? Not, surely, that it should make every man rich, for wealth is comparative, and to be rich, signifies to have more than one's neighbors have, and in that view very few can be rich any where. The wealth which, in the city, is expended in gilded coaches, with footmen in livery, and in marble palaces, and gold and silver plate, or that which, in the country village, attempts to ape the follies of city life, is neither possible nor desirable, to the many.

A business which in any country affords to any large class, comfortable clothing, shelter, food, a good education, good society, religious culture, in a respectable position, and enough to guard against the common chances of accident and misfortune, and old age, without labor so severe as to impair the health of body or mind, is all that reasonable men can hope for. Neither the sudden acquisition of wealth, nor exemption from physical labor, is deemed desirable by us, for men in general, however pleasant it may seem to be made the exception one's self.

Farming is thought, by many, to be an unprofitable business, but I am not prepared to admit it to be so. It is difficult to decide whether it is so, or not, because with us it is not kept sufficiently distinct from other employments to enable us to learn its results. A farmer is generally a mechanic, or trader, or speculator of some kind. He deals in lumber, or cattle, or connects something else with farming.

If farmers could be induced to keep accurate accounts, either of particular operations, or of their whole farming business, we should have some means of forming correct opinions.

To illustrate my idea, and to show that reclaiming swamp lands for grass, if properly done, *will pay*, I send a condensed statement of my operations on a meadow in Exeter. The price paid for it was generally thought, at the time, to be very high, and probably no looker-on, while my work proceeded, ever believed that it was other than a waste of money. I consulted a gentleman who had had charge of the land several years, and he said it had been examined by the best farmers, who had agreed that it was, the most of it, entirely worthless, and could never be made productive. On the very part pronounced the worst, I have cut three and a third tons of hay to the acre, at one cutting. The account shows that my expenditures and the interest on the cost, have exceeded $800, since I bought it, in 1844, and yet that at the lowest price for hay, the lot has repaid it all and much more. The soil is part a clayey loam, and part black mud upon sand. My account was kept very exactly for my private use. The hope that farmers may be induced to keep such accounts, and that their faith in the gratitude of Mother Earth to her sons for their attention to her may be increased, has induced me to publish it. I do not regard the work as very well done, and I know that twenty tons of hay might have been profitably raised, instead of fifteen, upon the lot, had I treated the whole as I treated part. I have sold most of the hay yearly, so that the weight was ascertained, and not merely estimated.

| DR. | THE COURT HOUSE MEADOW. | | |
|---|---|---|---|
| 1844. | To purchase money for 7 acres, | | $539,00 |
| May. | plowing, &c., for potatoes, 97 rods, | $9,14 | |
| | 12 bushels of seed potatoes, | 3,00 | |
| | 11 loads manure and hauling, | 26,98 | |
| | ditching, | 5,00 | |
| | breaking up one acre, six yoke oxen, | 14,50 | 58,62 |
| Nov. | six months interest on cost, | | 19,17 |
| 1845. | To 5 casks of lime, | 5,45 | |
| | plowing, and cultivation of oats, and potatoes, | 27,93 | |
| | seed potatoes | 1,80 | |
| | making roads and planting potatoes | 11,58 | |
| | fencing, | 35,15 | |
| | 15 loads of manure, | 30,00 | |
| | labor of men and oxen, plowing, digging stumps, ditching, levelling, spreading manure, and digging potatoes, | 79,30 | |
| | grass seed, | 2,25 | 193,46 |
| | interest on balance of last year, | | 39,00 |
| 1846. | To grass seed, | 2,27 | |
| | 1 bbl. of guano, | 5,00 | |
| | stable manure, hauling and composting | ,24,42 | |
| | labor of men and oxen plowing and laying land to grass, | 14,70 | 46,99 |
| | interest on balance of last year, | | 47,00 |
| 1847. | To manure, and hauling and composting, | 32,50 | |
| | labor of men and cattle, clearing up the last piece, | 52,50 | |
| | ditching, &c. | 8,00 | |
| | grass seed and rye, | 3,75 | 96,75 |
| | interest on balance of last year, | | 47,00 |
| 1848. | To labor, | | 10,00 |
| | interest on balance of last year, | | 49,69 |
| 1849. | To interest on balance of last year, | | 46,97 |
| 1850. | To interest on balance of last year, | | 43,69 |
| 1851. | To plowing and laying 1 acre to grass, and manure, | | 25,00 |
| | interest on balance of last year, | | 40,70 |
| 1852. | To 7 loads stable manure, hauling, composting and spreading, for top dressing, | | 19,25 |
| | interest on baance of last year, | | 20,34 |
| 1853. | To interest on balance of last year, | | 16,71 |
| | | | $1480,24 |

| CR. | THE COURT HOUSE MEADOW. | | |
|---|---|---|---|
| 1844. | By 6 tons good hay standing, | 32,00 | |
| | meadow grass and second crop, | 6,00 | |
| | 81 bushels potatoes, | 16,20 | 54,20 |

| | | | |
|---|---|---|---|
| 1845. | By 7 tons of hay standing, | 56,00 | |
| | 25 bushels of oats, | 10,00 | |
| | 3 bushels of barley, | 2,50 | |
| | 50 bushels potatoes, | 15,00 | |
| | wood, | 1,00 | 84,50 |
| 1846. | By 10 tons of hay standing, | 90,00 | |
| | 40 bushels potatoes, (on shares,) | 20,00 | 110,00 |
| 1847. | By 12½ tons hay standing, | 95,00 | |
| | 8 loads mud hauled, | 4,00 | 99,00 |
| 1848. | By 15 tons of hay standing, | 100,00 | |
| | 5 bushels of rye, | 5,000 | 105,00 |
| 1849. | By 15 tons of hay standing, | | 105,00 |
| 1850. | By 15 tons of hay standing, | | 90,00 |
| 1851. | By 12 tons, (one acre sold off,) | | 75,00 |
| 1852. | By 9 tons hay standing, | | 100,00 |
| 1853. | By 9½ tons hay standing, | | 133,00 |
| | Balance, being the present cost of the lot, after paying all expenses, and 6 per cent. interest to November, 1853, | | 504,54 |
| | | | $1460,24 |

The result of the operation, *agriculturally* speaking, is, that the lot has paid all expenses of labor, fencing and manure, six per cent. interest annually, and $134,46 more. But this is not all. More than half the lot was, when purchased, a worthless swamp, part filled with hassocks so that six yoke of oxen were required to plow it, and part covered with stumps, from which the wood had been recently cut. Now, the whole is a clean level mowing field, free from all obstructions except a few open ditches.

I think the fair value of such land is about $200 an acre, near any good market, and to show that my opinion is not singular, it may be stated, that I have sold enough of the lot, since last haying time, at $166,75 per acre, to bring me $565. It adjoins no street, and was purchased merely for agricultural purposes, and was subject to an incumbrance for which I had received $100. I also, in 1851, sold a little more than one acre, for $340, a part of which perhaps was for *fancy*, though it is occupied only for farming.

Farmers can make money by reclaiming wet meadows, and the foregoing statement shows it. This land was no better than thousands of acres, which may be bought, in New England, at ten dollars an acre, yet I paid for it nearly a hundred, because it joined my garden where I then lived, and like all land owners, I like to buy all that joins my own. Farmers can attend to such work at times of leisure, for themselves and their cattle. I paid one dollar a day, for every day's work of a man or yoke of oxen. The account will show that the hay, which was of the first quality, of herds grass, was estimated at only from six to eight dollars per ton, until 1852, when it is set down at about nine. This is a lower price by far, than the average, in our region, in past years, prior to 1844. This year, I sold it from the field at sixteen dollars. Again, every cord of manure is charged at four dollars, whether purchased or hauled from my own barn, and this is twice the cost of making it in most localities. Then, as usual, I followed no beaten path, but tried all sorts of scientific experiments in a small way, with lime and guano, and with barley and rye and oats, on places where it was said they would not grow. Everybody knows that these experiments are expensive to him who tries them, however they may help *the cause*. Indeed, I flatter myself, that with the added experience of ten years, I can manage wild lands to much better advantage than this lot was managed. I sold a part because my home is now on a new farm, where I am indulging my propensity to make rough places smooth, on land which cost me but twenty-five dollars an acre, so that my interest account will not consume the profits.

The three acres which I still hold of the "Court House Meadow," are worth more per acre than what I have sold.

Now, whether we regard the annual product of the land, or its selling value, it must appear that reclaiming swamps, is sometimes at least a profitable business, and that is the proposition which my statement and remarks are designed to illustrate.

H. F. F.

*Exeter, N. H., Dec.* 29, 1853.

## FARM FENCES.

This subject is an exceedingly important one, more so, we are confident, than many persons suppose it to be. Those who have been in the habit year after year, of mending up two or three miles of brush fence, about their pastures in the spring, and occasionally called away during haying and harvesting to "stop the gaps" made by hungry cattle, will be able to tell the cost and vexation of such insecure, perishable and expensive mode of fencing the farm.

We find in one of our exchanges some remarks on the subject which we copy freely, and for which we should be glad to give the proper credit if we knew from whence they came. The writer says—

"The best fence is a good stone wall; but if wood is used, skill and judgment are necessary in the selection of material and the mode of preparing it.

"The first item for consideration, in this matter, is *first cost*, and the second is durability.—Sometimes a third item may be important, to wit, the land used up by the fence. The second is the only one of these that can be estimated with any degree of accuracy by any general formula, and even this one is far from being uniform. But let us say a word of each.

"1. The stone wall. If material is at hand, or in the soil, and no especial obstacle or objection comes in to vary the result, our own opinion is decidedly in favor of stone fences. When properly laid, they outlast the builders. We know of fences of this kind, apparently as good as new, that have stood at least fifty years. These samples are chiefly of faced walls, with deep foundations, costing originally two or three times as much as an ordinary fence. But if they last as they now promise, the amount expended in their construction wa a capital investment.

"It is well known that, in most parts of New England, stone wall is the prevailing style of fence, both on the highway and for dividing lots; and in all that region with which we are well acquainted, we have never known a farmer who did not prefer stone to any other material for this purpose.

"To secure durability, the foundation should be placed below the action of frost, and the whole should be laid by a skilful man, so as to secure to the greatest extent the aid of gravitation and friction in resisting all violence from either side. When thus laid, this fence is a good security against domestic animals of all sizes.

"But sometimes stones are scarce, and timber is very cheap, while labor may also be expensive. So it often is where pine barrens or other forests abound. There is also a great difference in the *amount of defence*, so to speak, which is required. Sometimes, it is chiefly, a mere landmark to point out a highway, and some of the oldest parts of New England furnish evidence that even this is unnecessary. The path beaten by the hoofs of horses or oxen, and worn by the friction of wheels, is the only index of the existence of a road, while nothing but a marked tree or a post or stone, indicate a plurality of owners of the soil. Such regions of country, however, furnish no occasions for the application of any general rules on this subject."

On the minds of those who have made and used different kinds of fences, there will be little or no doubt that where stones are near at hand, they make a cheaper fence than any other material; and yet there are many farmers in New England, where the fields, directly about the buildings, are enclosed with wooden fences which must be thoroughly made over, perhaps as often as every 10 or 15 years, and which must be repaired *every* year. This is done, too, to enclose fields abounding with rocks, over which the teams are stumbling and the plows and rakes are constantly being broken.

2. "As to wooden fences, cedar, no doubt, is the most durable of all woods, and where it is abundant, so as to be cheap, it should be preferred, especially for posts."

Chestnut posts, properly set, will last from 25 to 50 years; and as this wood is found in many locations where cedar does not grow, it may be considered as the most durable next to the cedar and locust.

"All woods are made more durable by being charred before they are set in the ground. Decay or decomposition is a chemical process which requires the presence of certain elements which, in charcoal, are essentially wanting. Charcoal, we suppose, is never chemically decomposed by exposure to the air or water. It may crumble. It may be attacked in certain situations by elements not generally encountered. It may absorb moisture, so as to be broken by frosts, and the like; but still charring well pays its way, when timbers are to be set in the ground. But they should not be charred so extensively as to weaken materially their strength."

Mistakes are often made in charring posts while in a green state. This is supposed to render the post less durable than though it were not charred at all. The wood being full of sap, the charring prevents it from passing off, and the centre of the post decays, while the outside shell remains sound; but the post is so weakened as to become useless.

"Many experiments go to prove that the smaller end of timber should be set downward. The rationale of this is rather hypothesis than physiological demonstration, since we know of nothing which has been actually discovered, which implies an upper or under side to the circulating vessels which compose the wood. The tubes and cells present similar appearances at each extremity, though their form or shape, tapering or otherwise, may have an important bearing on this phenomenon."

We consider the *facts* of more value to us at present than to understand their rationality—though to understand the *causes* of things is pleasant. The evidence which may be adduced to show that posts set with their small end down, last longer than they will with the large end down, is of too high a character to be lightly rejected. In Vol. 5, of the *Farmer*, page 208, Mr. J. Davies, of *East Barnard, Vt.*, states that in 1838 he took a stick 14 feet long and cut it in the middle, setting the butt of one up, and the other down, 12 feet apart. In five years, the one with the butt down rotted off, and the other stands sound yet. A writer in the *Hartford Times* and two writers in the *Germantown Telegraph*, made experiments and confirm the statement of Mr. Davis.

Mr. Otis Brigham, of *Westboro'*, *Mass.*, page 256, same volume, says that the result of 40 years' experience with him, is, that common fence posts set in the ground *green*, and butt end downwards, will last, in a sandy loam, about 10 or 12 years. The same set in a like situation, inverted, will last 15 or 18 years.

"We might give an estimate of the cost of various styles of farm fence, as some of our cotemporaries have done on kindred topics, but no one would perhaps be a safe basis of calculation, for one hundred miles square. Hence we leave the subject here, giving in a tabular form the items which each man must estimate for himself. These will vary, of course, with the season of the year, even on any given territory and for the same job. These items embrace the following:—

1. Cost of material, and of preparing it.
2. Cost of transporting to the spot.
3. Preparing the ground for the superstructure, whether a wall or posts and rails.
4. Cost and amount of labor to be employed.
5. Value of land affected by the fence, whether by occupying space or by causing shade.

"As to the age of timber and the season of the year when it should be cut, to secure the greatest durability,—young or at least sound timber should be selected, and the *spring* or early summer is probably the best time for cutting it. The latest growth will then have become somewhat hardened, and the condition of the sap at that

time *is said* to be favorable to their remaining sound for a long time. We do not attach much importance however to the hypothesis.

Mr. Emerson, in his very valuable report on the *Trees and Shrubs* of Massachusetts, seems to be of the opinion that *autumn* is the best time for cutting timber; this opinion was sustained by information from many valuable resources. We should think the spring, when the tree is full of sap would be the worst time for cutting.

"Wire fences are not generally approved, so far as our observation extends. When wires are stretched across a cheap frame, they may be very convenient for enclosing temporarily a small plot of ground, but for a permanent fence they will not pay. If they are used, they should be confined in their place by passing through substantial wooden posts, sufficiently near each other to attract the notice of animals. For one objection to them is, that cattle do not see them, and hence they are exposed to a degree of violence, even from quiet animals, which will severely try their strength. Live posts, earthen or burnt clay posts and the like, we regard as ingenious, rather than practically useful. They may sometimes answer well, but not as a general practice."

If the writer has had experience in the erection and use of *wire fences*, we should be surprised at his conclusions. We believe wire fences may be more cheaply constructed than any other, and will be found as durable and efficient as any, a stone wall excepted. The difficulty has been in straitening the wires. This process is simple and easy when *one knows how*. A small roller of wood, and two iron pins 18 inches in length each, will help to overcome every difficulty. The whole process is described in former numbers of the *Farmer*.

"A fence, the lower half of which is stone, and the upper half rails or wires, may serve a very good purpose, and where stone is scarce, it may be the best form of fence.

"But, whatever style is adopted, let the materials be of good quality, and the work be done skilfully. Sham fences are among the most expensive forms in which a lack of practical skill in farming operations is often exhibited.

## HORSES FROZEN OR STARVED.

When the country was new, and rude farm-houses with rattling windows, uneven floors, warped clapboards and open fire-places were the best habitations that could be procured; when the drifting snow found its way through windows and doors even to the bed chamber, when the clothing of the people was scant and thin, it was hardly to be expected that horses should be privileged with warm stables or covered with thick blankets. Necessity knows few laws, and the poor man's horse suffers accordingly.

But times have changed. Thrifty people of New England are able to procure houses impervious to wind and snow, and clothing that makes our coldest days quite tolerable to healthy people. They possess also means of warming their houses, which makes them most delightful as the sweeping blasts of winter grow more intense.

In many, perhaps most cases, the condition of the horse and of his less intelligent neighbors, the cow and the ox, has gained equally. But the exceptions are far too numerous. Men who take no agricultural papers, who have no inborn taste for improvement, are frequently content to do as their fathers did. Hence, cattle exposed to the frost and storm of winter, with little shelter, perhaps with none; and horses are allowed—tell it not where slaves have as their only food a scanty allowance of corn bread!—to feast themselves on a northern hill-side in the open field, day and night upon a stock of withered grass! It would not pay to envy the feelings of men who can permit such practices. The sight may furnish an argument to show that self-interest is not sufficient to insure kind treatment to chattels of two or four feet, and that slave-holders are as kind-hearted as their northern brethren; but how can it minister to the comfort of a Christian man in a winter's night to reflect that his cattle or horses—however young they may be—are exposed to its rigors, how he can rest quietly or be cheerful at home or abroad, while his half-starved horses are shivering with cold, may well excite surprise in a truly benevolent mind. Among semi-barbarians, with their rough, coarse natures, among men who delight in war, it might be expected that their horses would be cruelly treated, as they are; but among Christians in New England such sights are not to be expected, and ought not to be witnessed. In some cities, perhaps in most, the law protects the horse from the open and excessive violence of his master, for the sight and sound are revolting to the finer feelings of humanity, and tend to debase and brutalize those who witness it, to say nothing of its effect on the passionate and cruel driver.

But against a process which kills domestic animals by inches—against a system of freezing and starvation which tortures the horse, and blunts the finer and nobler system of him who practices or allows it, the law can raise no barrier. It cannot protect the poor brutes, nor those whose proximity to such a person makes them involuntary witnesses of his cruel neglect. Much as their kind feelings are outraged by such conduct, they can do little more than remonstrance and protest against it. It may be possible, however, through *The Examiner* and other agricultural papers, to diffuse information respecting both the cruelty and the expensiveness of such an exposure and neglect of horses and cattle, till intelligent men would as soon ride "bareback," without bridles, build barns without roofs, and attempt to fatten hogs on dish-water, as to keep stock without providing warm, dry, well-ventilated stables, abundance of well cured hay,&c,, or without covering the horses when it is necessary for them to stand long in the open air in a cold winter's day. Economy, good taste and good morals, unite in requiring the change of the old system for the new.—*Norwich (Ct.) Examiner.*

Fat Cattle.—Seth Bush, Esq., of this town, weighed, on Monday last, six pairs of oxen which "talked up" as follows:—1st pair 4800; 2d do. 4200; 3d do. 4100 4th do. 4090; 5th do. 3810; 6th do. 3600. Such beef would be a rare commodity any where else, but here our farmers make nothing of "building" cattle a little less in size than the ancient Behometh.—*Westfield New Letter.*

## A MODERN SUFFOLK STALLION.

The best breed of horses for the farm and the road—for cultivating the soil and taking its products to market—for general farm purposes—is a subject of great interest to very many of our readers. For the carriage and light work, this country can furnish as good and as fast horses as any other, but for the heavy work on a farm—its breaking up and deep plowing—our common horses lack the strength and bottom, there an essential requisite. This subject has of late attracted considerable attention, and a writer in a recent number the of the *Wool Grower and Stock Register* has an extended article on Farm horses, their points, &c., from which we extract the following on one of the favorite breeds of British agriculturists.—*Rural New-Yorker.*

"In England the *Suffolk* is considered the best breed of horses, adapted for all purposes of modern agriculture. At the recent annual show of the Royal Agricultural Society, this breed carried off all the prizes, as it did the highest one at the great show at Windsor in 1851.

The modern Suffolk horse still retains many of the best points of the celebrated 'Suffolk Punch,' but his height and size have been increased by admixture with the Norman and Yorkshire breeds. He is higher in the withers than the Punch—it is doubtful if this is an improvement—legs lighter and flatter the sides more rounded, and altogether a more beautiful and symmetrical animal. The horse of Mr. Catlin, (portrayed at the head of this article,) is a good representation of the breed, and is doubtless the best farm horse in great Britain, as to him was awarded the first prize of $150, at the great Windsor Show in 1851. These horses are by no means plentiful, and if well bred, command high prices. There are, however, in England, as in this country, any quantity of horses that can be bought cheap—and are dear at any price."

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*For the New England Farmer.*

## TO STRAIGHTEN STEERS' HORNS.

Friend Brown:—In reply to a subscriber inquiring how to straighten steers' horns, I give my method. Steam the horn you wish to straighten by binding on a boiled potato, hot, then take a sharp rasp and rasp the horn on the side you wish to straighten; then scrape smooth and thin with a piece of glass, and put on some thin oil, well rubbed in a few times, for three or four weeks.

I would like to inquire through the *Farmer*, how to kill white daisys, and what way house ashes may be used on a farm to the best advantage.

T. C. Branch.

*Cornwall, Vt.*, 1853.

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Remarks.—You will find in another part of this number some remarks on the white daisy. Wood ashes is valuable on most crops, perhaps all. We have found great benefit to the corn crop by applying a gill to each hill, placed near the young plants just before the first hoeing. They

are excellent spread broadcast on grass land; so are they about apple trees, dug into the soil, and on any of the garden crops.

## THE GOOD OLD PLOW.

Let them sing who may of the battle fray,
And the deeds that have long since past,
Let them chant in praise of the tar whose days
Are spent on the ocean vast.
I would render to these all the worship you please.
I would honor them even now;
But I'd give far more from my heart's full store,
To the cause of the Good Old Plow.

Let them laud the notes that in music float,
Through the bright and glittering halls;
While the amorous twirl of the hair's bright curl,
Round the shoulder of beauty falls.
But dearer to me is the song from the tree,
And the rich and blossoming bough.
O, these are the sweets which the rustic greets
As he follows the Good Old Plow.

Full many there be that daily we see,
With a selfish and hollow pride,
Who the plowman's lot, in his humble cot,
With a scornful look deride;
But I'd rather take a hearty shake,
From his hand, than to wealth I bow;
For the honest clasp of his hand's rough grasp,
Has stood by the Good Old Plow.

All honor be then to these gray old men,
When at last they are bowed with toil;
Their warfare then o'er, they battle no more,
For they've conquered the stubborn soil;
And the chaplet each wears, is his silver hairs;
And ne'er shall the victor's brow,
With a laurel crown, to the gave go down
Like the sons of the Good Old Plow.

*Genesee Farmer.*

## MR. PROCTOR'S ADDRESS.

We are under obligations to Brooks Shattuck, Esq., President of the *Hillsborough County, N. H., Agricultural Society*, for a copy of Mr. Proctor's Address, delivered before that Society in September. We listened to the Address with much gratification at that time, and spoke of it through these columns, as one that would be remembered. We do not understand Mr. P. as objecting to the introduction of foreign stock, or of free experiments in crossing; but rather, that our native cattle have not had a fair trial with others—no one family having been kept pure, and receiving that careful attention in feeding which the Short Horns, Devons, Ayrshires and others have had.

Two or three paragraphs are given from it below, with the hope of referring to it again.

Working Oxen.—I have witnessed not less than forty plowing matches, with an average of twenty ox-teams in each; but I do not remember a single instance where any superiority of power was manifested in their operations, by the imported over the native cattle. If they possess this power, would it not have been made apparent under such circumstances? I have know attempts to exclude expert plowmen from holding the plow, but I never knew any attempt to exclude expert oxen from drawing it; and if I had, I query, whether the slow moulded Durhams would have been thus privileged. I have seen the massive Durhams, the descendants of the far famed Denton of Northborough, moving in the plowing field side by side with the snug built, bright-eyed native ox from Sutton—a little more than half as large—and was constrained to say, that the work was quite as well done by the latter as the former. If you were about to select your man for promptness and expertness of labor, would you take the largest to be found? By no means. I have seen the snug built little man, weighing not over 160 pounds, who would lay on his back *the largest lubber* that came along. The same rule applies to oxen for labor.

Milch Cows.—Our milch cows, for the making of butter and cheese, the primary object for which they are kept on most farms, are certainly not inferior to any others. In expressing this opinion, I take into view their *feed* as well as their *products*. I have seen many cows within thirty years, and the very best I have seen have been native. Such was the opinion of Timothy Pickering and John Lowell, gentlemen of discrimination, observation and high character for intelligence and truth as any others. Not speculators in stock—with no prejudices to conquer, or preferences to reward. That I may not do injustice to these venerable pioneers in improvements, who did more in Massachusetts to awaken public attention to the interests of the farmer than all others, I beg leave to quote a single sentence from a Report submitted by Mr. Lowell, on milch cows, exhibited at the show in Brighton, October, 1822, when Mr. Pickering was associated with him on the committee; and I myself was present, a *stripling looking on*. Says he:

"Although the milch cows of Great Britain and the Netherlands are in general far superior to our own, I have never seen an imported cow with equal merit with some of our own, that have been offered. So fully am I convinced of this truth, as well as that our country possesses a very considerable number of these fine cows, that I am persuaded if Great Britain or the Netherlands, or all Europe combined, were to send us *ten cows*, selected each of the best quality there to be found, New England alone would furnish *twenty*, that would equal them in the quantity of *milk*, *butter* and *cheese*, they would respectively produce."

Obstacles in the Way.—Perhaps there are no greater obstacles in the way of the advance of the farmer than what arises from the mistaken apprehension of the superiority of the employment. There are many young men, (of which I confess myself to have been one,) who foolishly seek what they imagine to be a more elevated and dignified pursuit than the tillage of the ground. They wander from the home of their birth, where contented labor would have insured peace and prosperity, in pursuit of a phantom of the imagination, dazzling to the *eye*, but not easily grasped by the *hand*,—and when the hand is supposed to be upon it, it not unfrequently is found *not to be there*. Many a man, after struggling in vain, until he has no power to struggle longer, looks back upon the less aspiring companions of his youth, comfortably provided on the farms secured by their well directed industry, and bemoans his own *erratic judgment*.

So many instances of the kind have occurred, that I consider the principle as well established as any other, in political economy. Often, by grasp-

ing at too much, the whole is lost, as we learn from the dog in the fable. The power of the cultivator is increased by concentrating his operations. How otherwise can it be explained, that the cultivators of vegetables, in the vicinity of dense populations, pay, and can afford to pay, three, four, and five times as much for lands, as those of like quality can be procured for, a few miles distant? A great change in this respect has taken place on the farms with which I was best acquainted when young. The *carrot*, the *beet*, the *turnip*, the *onion*, and *various kinds of herbs*, now engross the better part of the cultivated acres. In fact, other crops are now looked upon as preparatory and subsidiary to these, because these are the most reliable products of the farm. It is not over-stating to say, that the net increase per acre, after a liberal allowance for all contingencies, has been *three-fold* by the change. Where *twenty* dollars per acre was considered a good return from ordinary farm products, *sixty* or more is now realized. And in instances, not a few, double this sum.

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*For the New England Farmer.*

## EXHAUSTED LANDS.

BY A. G. COMINGS.

The sterility of New England soils is proverbial. From every quarter we hear the cry, "Our lands are exhausted." The subject becomes of great importance, when we know that exhaustion has taken place to so great an extent as is indicated in our soils.

We may rush to a hasty conclusion as to what constitutes the exhaustion of our soils, and spend thousands of dollars to effect a remedy, when the whole amount may be little or no better than thrown away. To avoid this, who will not see the importance of understanding wherein the soil is exhausted? It will be said by one that the soil is exhausted of its potash; by another, that the soil has not enough of the constituents of common salt; by many, that there is a great want of lime, or phosphate of lime; and another still may tell us that it consists in something else.

The chemists of our time offer to settle the question for us, by analysis of soils. If this would meet the difficulties of the case in theory, it never will in practice. Our uneven lands are so broken and varied that almost every acre, (I might have said almost every square rod,) of our ground would need a chemical examination. If examinations by the acre might be sufficient, (which certainly would not be,) even then the cost of the examination would be more than the worth of the land after it was examined, in most cases. The farmers of New England will never pay the expense of a chemical examination of their soils, to any great extent; and to expect a remedy from that quarter would be little better than it would for travellers to expect ships and steamboats to fly in the air in time to come. It is wholly out of the question. There are and will be instances in which analysis of soil will be of the first consequence to the farmer. But there are and always will be very few in New England. The thing is entirely out of the question, for the farmers of N. E. to get their worn out lands analyzed.

The worn-out or exhausted lands of New England, or those which are often spoken of as such, are very generally supposed to be exhausted most in the mineral or inorganic substances required by growing plants. Is this idea courect? Is it not, after all, the real truth of the matter, that the exhaustion of our soils consists much more in the organic substances of plants? I think it is so, and that the remedy is perfectly within the reach of our farmers, in ninety-nine cases out of every hundred. (*a.*)

There are in New Hampshire, I believe, thousands of acres which are regarded as pretty much worn out, and which are sufficiently supplied with the mineral or inorganic elements of plants to endure cropping for hundreds of years, without those substances being exhausted. At the same time there is not a sufficient supply of the organic constituents of plants to mature one good crop, in the same soil. I can look in every direction over hundreds of acres, where the land presents a like surface, having an active surface-soil of comparative little thickness, in which the amount of old vegetable matter is not sufficient, if it could all be prepared at once as food for plants, to sustain one half a decent crop of corn, potatoes or oats. At the same time, the earthy or inorganic elements of plants, those which would remain after the burning of a plant, as ashes, are scattered freely through the entire subsoil, to any depth to which we may descend, even if it were a thousand feet. While the thin, surface soil may be in some measure exhausted of the mineral constituents of plants, (and still more of the organic,) every part of the subsoil is as full of those mineral or earthy constituents as an equal amount of the surface soil was in its original state. Were it not that those substances in the subsoil are combined, frequently, if not generally, with substances which are injurious to vegetable growth, and which must be overcome by the well-directed efforts of the farmer before the subsoil will become an active agent of good to vegetation, there would be no question but the deepest plowing would in all cases secure best results. Where the subsoil is possessed of injurious substances, it must be brought up in smaller quantities, or the land must lie fallow for a length of time; unless some extraordinary application of neutralizing agents is to be made.

Upon land where we are told that the phosphate of lime is quite exhausted, we see trees growing rapidly, of the very kinds which show the presence of an abundant supply in the soil. The thin, surface soil is perhaps exhausted of phosphoric acid and lime; but the kind of trees which grow there may tell to a certainty that there is still an abundant supply,

Many are led to suppose that the potash is all taken out of their soil, and they are procuring large quantities of hard wood ashes to supply the lack, while in much of the same land the amount of potash which is contained is perfectly measureless and inexhaustable. The soil needs working and managing in a proper manner to bring it into use, because it is now combined with other substances, forming coarse particles or lumps which growing plants cannot use. (*b.*)

To prepare the abundant mass of earthy or mineral substances of the subsoil for use, certain substances from among the organic constituents of plants, or those which are thrown into the air by burning, are necessary. These being exhausted, there is a lack of power to assimilate and prepare the inorganic substances or elements for use.

The application of hard wood ashes, in liberal quantities, to such land as I have spoken of, may cause them to produce a more ready and rapid growth of whatever is to be raised, by decomposing the small amount of vegetable matter in the soil; and yet, while it appears to benefit it very much, it may be hurrying it to a hopeless sterility.

The exhaustion is chiefly in the organic substances required by the growing plant. (There are lands which form an exception, it is readily admitted.) To supply what is needed, at the cheapest rate, and by the readiest means, is, I think, the greatest of all questions now before the farmers of New England. It will cause a faithful and careful estimate to be put upon deep plowing, throughly working the soil, the use of green crops, meadow muck, guano, urine, &c. A. G. C.

*Mason, N. H.*

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Remarks.—(*a.*) We beg leave to call especial attention to this part of our correspondent's proposition. He does *not* believe that inorganic manures are useless, but that they are not absolutely essential on most of our farms in greater quantity. If the idea should become general that a free application of salt-petre, lime, plaster, superphosphates, guano, &c., were *indispensable*, it would do more to discourage the farmer and check agricultural progress, than any other doctrine within our knowledge. No. The farmer, in most cases, has the elements of fertility under his own control,—*first* in the excretions of his stock carefully preserved, and *secondly*, in restoring to his fields the organic matter which for untold ages has been washed from them into the valleys at their base.

(*b.*) In the cultivation of most crops the soil is not made sufficiently fine before planting or sowing, and the hoed crops are not stirred often enough afterwards. The reason of this is, that we do not yet clearly see where a large portion of the fertilizers come from that perfect our crops. When we become convinced that they are supplied by the *atmosphere* that surrounds them and ourselves, then we shall begin to inquire, how they can be arrested, and converted into our grain, grass, and fruit crops. We cannot, here, go into details on this point, but we beg him who doubts to look at the matter candidly for a moment.

In riding a *single hour* on an engine with the engineer, he sees, with his own eyes, that *a cord* of pitch pine wood is used together, as he is told, with several hundred gallons of water. He looks into the pan under his feet and finds but a mere handfull of ashes there, and wonders what could have become of *eight feet* of wood and some *hundreds gallons* of water in less than *sixty minutes!* He has seen dense columns of smoke issuing from the murky throat of the machine, and streams of hissing vapor from the steam-whistle—the first of which would have suffocated him immediately, and the latter proved fatal equally as quick; and yet, in this wonderful alembic, the *Atmosphere*, these substances are so suddenly resolved into their original elements and compounds, that his friend, standing on a car a little behind him, breathes them with perfect impunity.

The atmosphere consists of a mixture of oxygen and nitrogen gases, a little carbonic acid and watery vapor; but it contains besides many other substances which exercise an important influence upon vegetable life. Volatile matter constantly arises from decaying animal and vegetable substances, from the meadows, manufactories, sewers, and every substance that is perishing. The sea constantly sends up a portion of its common salt, and where chemical operations are carried on, vast quantities of gases are constantly carried into the air. What becomes of them? If they are not returned to the plants, where do they go? Why does not the earth diminish in bulk where so much is taken away, if nothing is returned? But if they returned, *in what condition must the soil be, in order the more freely to receive them?* We answer, in a *light*, *fine* and *porous* state, and this brings us back to the point from whence we started, where we will at present leave the subject for the reflection of the reader himself.

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## STEAM FARMING.

It is pleasant to see that this wonder-working power can bring landlords and mill-owners into social intercourse, honorable to both sides; it is not less remarkable that it bids fair, ere long, to merge the two great classes in the one class of manufacture. In one aspect it is exalting the present manufacturers to a level with the lords of the soil—in the other it is converting the landlords themselves into master manufacturers, and their farms into manufactories. The day after Mr. Salt's princely *fete*, Mr. Mechi was the invited guest of the Herts Agricultural Association. An earl, and a baron, and so forth, were assembled, in expectation of the speech of the day from a London tradesman; one who had made an irruption from the counter (with wealth amassed there), into the broad acres of the territorial aristocracy. Nor did the guest disappoint the nobility and squires who had invited him evidently to stimulate their own tenants. He dealt out wholesome suggestions to landlords with large estates, complaining of want of capital to improve; honestly advising them to sell part of their land, and improve the rest with the money. He rebuked tenants, who, clinging to the old ways, grudged the landlord a fair interest for the money he had laid out; but the burden of his speech was steam.

The amount of steam power in any agricultural district he took as the test of its condition. People thought him crazy when he first put up a steam engine; but now, two makers in the village had more than they could do to supply the neighborhood fast enough. Lincolnshire and Norfolk farmers have, some of them, one, two, and even three engines on a farm! Herts had but made a beginning; he was sure they would soon get deeper into it. But the grand agricultural achievement of steam is yet to come. Its advent is nigh. Mr. Mechi is now building the engine, at a cost of two hundred pounds, which is to plow the land and

do almost everything besides. A Canadian engineer, neglected in his own province, is working at Tiptree, under Mr. Mechi's patronage; soon the implement is to be ready which is to revolutionize British agriculture, to enable farmers to plow twelve inches deep instead of five inches, and to benefit agriculture about ten millions of pounds per annum! What are all the budgets of rival chancellors of the exchequer to this? His guests, the gentlemen of the top boots and gaiters at least, were withheld, either by utter blank astonishment, or by not having heard so much Latin from exclaiming *Credat Judæus Apella!* However, the sober truth remains, that we have now farms in which steam does all the fixed machinery work, that such farms are increasing in number, and that machinery of every kind is so rapidly extending that the farm is fast assimilating to the manufactory; and that the farmer and his laborers bid fair, in another generation, to equal in intelligence their brethren of the towns.—*Eng. paper.*

## A GOOD HIT.

The *Pennsylvania Farm Journal*, published at West Chester, gives an excellent contrast between the thrifty and thrift-*less* farmer, in two engravings, opposite each other. The picture on the left shows the nice and convenient farm buildings, tastefully set off with shrubbery, shade trees, fine fences, good gardens and roads, and all enlivened by the most active industry of men and teams in the fields. On the right, not a shrub or shade tree is to be seen near the buildings. The roof of the barn is in waves, like a troubled sea; the weathercock is keeled over, while the doors look as though they had just come out of a dreadful spree and didn't know which way to lean. Broken slabs, old wheels, tin pots and cast off boots and used up crockery are scattered in the door-yard. Emaciated cows are mumbling away at the hay stacks, while lank and haggard oxen are drinking at a trough at the end of the house farthest from the barn, and lean horses are collecting the scattering blades of grass on the dreary looking pasture in the rear. The sheep, with their backs humped up, might stand "all fours" in a two quart measure. The foreground is embellished with the skeletons of dead cows, pigs and poultry. The hogs have just broken through the rickety fence, which Tom is patching up, while Sam, club in hand, hangs on to the tail of a long-nosed, lop-eared, race-hog, which he is belaboring with unmerciful blows. The bull-dog, Grip, has another by the ear, whose direful squallings set the hens, turkeys and geese into a perfect flutter.

To complete the picture, the lout-proprietor sits in the piazza, perched on the hind legs of his chair, contemplating the scene before him, and complacently listening to the rebukes of a woman who has popped her head out of a broken window, just in time to see the hogs destroy what few garden vegetables were left, from former depredations.

Your hit, Mr. *Journal*, is admirable—it is decidedly historical, too. So were Hogarth's pictures, and told their story to the public with as much directness and force as Junius or the Dunciad, and were felt as keenly as any of the stinging sarcasm of either.

Hogarth would have found plenty of subject matter in your picture on the right for one step in the Rake's Progress. Pass it along.

## STABLING AND FEEDING COWS IN WINTER.

Can you inform me through the columns of the *Country Gentleman* how I can prevent my cows from lying in their manure when in the stable? I have tried every way that I can think of, but all to no purpose—for every morning their udders are so filthy that it would take five or ten minutes and one gallon of water to wash them clean. My stable floor is good, slopes back three inches in ten feet. I clean it out every day and cover over with clean straw. Unless I can find some remedy I shall have to abandon stabling altogether.

Should cows be fed before or after milking, or does it make any difference in product of milk or butter?

Ought cows to be subjected to long stripping, or not? I have a heifer with her first calf, that is disposed to strip a long time, and I do not wish to spend the time unless the product of milk is increased thereby.

Also, which is the best straw and hay cutter for general use with which you are acquainted; what is the price, and where it can be obtained? Or will it pay at all to cut feed for two or three cows, when you have plenty of work to occupy your whole time at 75 cents per day, and can purchase hay at seven or eight dollars per ton?

Please give me all the information you can on the above subjects, which will be thankfully received by A SUBSCRIBER.

*Connellsville, Pa.*

To keep cows clean during the period of their stabling, we have found it absolutely necessary to clean the stables at least twice a day, and more especially in the evening just before spreading their beds of straw for the night. They should also have room enough to select a clean place to lie in, and be tied so as to lie down and rise again without the least inconvenience. With these precautions we have no difficulty in keeping them clean.

The udder of some cows is more easily drained than of others. Where necessary for completely emptying the udder, long-stripping must not be neglected. Cows which are not milked clean, diminish in quantity, and soon "dry up." The process of stripping may possibly be continued so long as to be a waste of time, but we have never known an occurrence of this sort, for not one milker in twenty does the work thoroughly enough, especially towards the close of the year, when the supplies are given down more slowly.

A cheap and perfect straw-cutter has n been made. Those manufactured by Emer y, gles, and others, consist of a cylinder of cutting on a roller of green hide, and c u great ease and rapidity, and do not ea sily g of order. They have but one serious d efect—will not cut shorter than an inch, wh ich w

tolerably well for hay and straw, but not for corn-stalks. The price is six or seven dollars, and upwards. The cheaper ones do not cut so fast nor so short as those of higher price and more numerously furnished with knives. Sanford's straw-cutter, sold, if we mistake not, by Rapalje & Co., of Rochester, costs about 12 dollars, and consists of two cylinders of knives working into each other like the teeth of two cog-wheels. It answers well for corn-stalks, crushing and cutting at one operation, but from some cause unknown to us, does not appear to have been extensively used. For cutting very short, we have not yet found a machine that is at once reasonably cheap, efficient, and durable for long use.

Cutting fodder has several advantages. Straw and hay may be intermixed and both eaten together, and mastication rendered more complete and perfect; corn-stalks, *if cut finely enough*, will be more thoroughly eaten, and the manure will be fine, instead of coarse, long, and unfit to apply till thoroughly rotted. We have no accurate experiments to show the precise amount saved by cutting; an acquaintance informs us he finds the yearly saving in keeping a single horse, to be twenty dollars, out of fifty, formerly required; but we think his estimate too high. The public very much needs more accurate experiments on this subject.—*Country Gentleman.*

## MILCH COWS—AN ANSWER.

In the "Newspaper," of Nov. 16th, I find an article headed "Milch Cows." W. R. wishes to know how many milch cows can be well kept on twenty or twenty-five acres of average grass, exclusive of winter feeding! Also, the average quantity of butter that can be made from said cows—the number of hogs or pigs that may be kept from such a dairy—the best mode of wintering cows, and the management of corn-fodder! In answer, I would say, that from fifteen to eighteen cows could be well kept on twenty or twenty-five acres of grass, on good soil. Cows will produce from one hundred and fifty to two hundred pounds of butter per annum each, which will average, say one hundred and seventy pounds each, for fifteen cows, making a total of two thousand five hundred and fifty pounds per annum. Two cows will keep three hogs well. Some say two pigs to one cow is a fair proportion, but we will say three pigs to two cows, to insure good feeding that will make twenty-three pigs to fifteen cows. Cows should have a warm stable, well ventilated, so as to have a good supply of fresh air; during the day they should be provided with a yard, having a southern exposure, for cows are fond of the sun in the winter; the yard should be provided with shelter, to protect the cows from cold winds and inclement weather. At night they should be stabled, and fed with well cured hay. A little bran is of great benefit to a milch cow, even six quarts a day will make a great improvement in her milking, to say nothing of herself. Cows should be fed or foddered three times a day, and have a plentiful supply of good food, and fresh water to drink whenever they wish. As to corn-fodder, the best I am aware of is, to cut it in pieces of from eight to twelve inches in length, and steam and scald it, first adding a little salt to the mess; by so doing the cows will eat it up very eagerly, and there will be no long corn-stalks in your manure. Corn-fodder served after this manner is as good as hay for milch cows.—*Phil. Dollar Newspaper.*

## THE LITERATURE OF AGRICULTURE.

Our own estimate of books which expect to make farmers, where there has been no practice or apprenticeship, is not higher than our estimate of books which propose to make Christians by the same short process. We remember, as if it were yesterday, how blankly we looked in each other's faces, when, on a fine spring morning, having bought our radish-seed, we prepared to plant it, and consulted the "Dictionary of Gardening,"—and read together, "The well known manner in which this vegetable is cultivated renders any observations thereon *unnecessary*."

We relate this experience as a hint to preachers, as to what is necessary and unnecessary in discourse.

It is at the same time an illustration of the reason why no book can make a farmer. We have, now, two books before us,—which show, in wholly different ways, how wide is the range of thought which belongs to the great science of farming,—and what constant stimulus to intellectual effort that man has, who would diligently apply himself to explore it. It is no little satisfaction to see how many men set themselves to making two blades of grass grow where there has been but one.

The first of these two books is the Patent-Office's Agricultural Report for 1852. It was made up under some earlier administration, and only concluded by Mr. Hodges, who seems to be well aware of its deficiencies. To speak of the first of these first, we would suggest that it ought to have been completed before the 28th of February, 1853, and then ought to have been printed before now. Phillips & Sampson, Crosby, Nichols & Co., or any other firm of publishers who are awake, would feel disgraced if an octavo volume like this cost them six or seven months time in the printing. It should have been written, printed and distributed, before the 1st of March.

Within its covers there is, as usual, an immense range of correspondence, with no index,—no running titles,— nor other clue to its contents. There is, however, here a great deal of really valuable information, mixed with the trash to be expected. It is a singular merit to be claimed by hardly any other book, that the climate, soil and needs of almost every State are specifically alluded to in these different communications. And we do not doubt that careful readers will draw information from one part of the Union, into such form as shall suit their purposes in another. The book, as it stands, is a sort of compost heap just made. The result of it will undoubtedly be good harvests. But it is of no great use just as it is,—it needs a good deal of fermentation, and careful spreading, harrowing over, and working in with other soil.

Our other book, alluded to above, is a curious illustration of the tribute of one art to another, of the machine-shop to the farm. We have, long since, made a walk through Ruggles, Nourse & Mason's Agricultural Warehouse, the amusement and instruction of a leisure hour. We have here, in a hundred and fifty pages, the catalogue

of tools and machines, made by them, for farmers, —in number and variety to stagger the belief or understanding of any but a connoisseur. Let no one suppose that because he knows what a hoe, and rake, and spade, and plow and harrow are, he has exhausted even the types of agricultural mechanism. Here are lactometers; the English talacre; post augers; meat cutters and sausage fillers. Here is the science of plowing very well laid out, and illustrated by the several forms of plows which these manufacturers have devised for its requisitions. Plows for all soils,—all slopes of surface, and even left-hand plows for the left-handed German and Dutch farmers of the West. There are nearly a hundred plows in this list, of different varieties.

No one can leave such a book, without abandoning forever the notion that one of the great subdivisions of labor is more useful than another. Each is lost without the other. The farmer cannot say to the mechanic, "I have no need of thee" —more than the foot to the hand, or the ear to the eye.—*Christian Register.*

## UNITED STATES AGRICULTURAL SOCIETY.

The Second Annual Meeting of the UNITED STATES AGRICULTURAL SOCIETY, will be held at Washington D. C., on Wednesday, February 22d, 1854.

Among the objects of the Association are the following:—

The acquisition and dissemination of the best experience in the Science of Agriculture:—

The union of the men who desire to advance to its legitimate rank, this most important of all human pursuits;—and

The increase and extension throughout our country of a more cordial spirit of intercourse between the friends of Agriculture, by whose countenance and co-operation this Society shall be elevated to a position of honor and usefulness worthy of its national character.

Business of importance will come before the meeting. A new election of officers is to be made, and in which every State and Territory is to be represented.

Applications will be laid before the Society for the holding of National Exhibitions in different parts of the Union.

Delegations are respectfully solicited from all the Agricultural Societies in the country, and the attendence of all Agriculturists, who may find it convenient to honor the occasion with their presence. MARSHALL P. WILDER, *President.*

WILLIAM S. KING, *Rec. Secretary.*

*January*, 1854.

REMARKS.—We have attended the two annual meetings of this Society at Washington, and found great pleasure in meeting so many earnest friends of the cause from various parts of the Union. We hope to meet them again, with numbers of our citizens, together with delegates from every State in the Union. It is an occasion of interest and importance, and those who have never visited the federal city will find it a most favorable time to be there during the sittings of the National Society.

*For the New England Farmer.*

## WHAT A GARDEN SHOULD BE!

Few words awaken a greater variety of pleasing remembrances and ideas than *Garden;* and its utterance strikes a chord, that, swelling and vibrating, carries us back to the birth-place of man, and thence, lingering in the valleys of India, climbing the mountains of Europe, nestling among the glades and parks of England comes to us fraught with mysterious meaning, and manifests even here, in bare, bleak, rocky New England, how endeared are its associations and memories to the refined mind.

Is it wonderful that every mind should feel it a part of its own nature to love the garden, the birth-place of man, and his resort ever, for repose, pleasure, and instruction? Would any philosophy be far wrong that, starting with the assumption, that God manifestly interferes in the special actions of his children, should assert the first employment of man, and his natural and congenial one, was gardening! Were it desirable to prove that division of labor constitutes the welfare of communities, that sin of Adam, which drove him from the garden of Eden, would seem an intentional interference of God, to prevent all the dwellers on the earth being tillers of the soil. When driven thence, and forced to seek their support, some of his descendants, too lazy to cultivate the earth, would turn to less laborious occupations, and try to substitute the work of the wits for that of the hands.

It is worthy of notice, that amongst the more simple of the civilized nations, all refinement sought its expression in some connection with the garden. If we instance the Greeks, we cannot fail to remember that Plato and Aristotle taught in gardens, and that Pliny and Horace were devotees to its culture and beauty. Our Saviour passed his most trying hours on earth in a garden, and through all later time, men of leisure and refinement devote their first wealth and opportunity to developing some of nature's beauties. This peculiar tendency of man for such a resort and pleasure could not escape the poets; and therefore it is, that we find all the Amative and Lyric poets, with some of the Epic, basing much of their claim to attention on the praises of garden walks and pleasures. There the tales of love are told, parties of pleasure planned and executed, and grave council held; and when the place is not specially referred to, some of its gifts or associations, are the absolute or symbolized medium of courtesy and intercourse.

Were the critic to carefully unthread from the acknowledged language of love, letters, and society all the images and epithets owing their origin to some connection with gardens and flowers, he would deprive it of half its ornament.

The great influence over the mind of an association with the beautiful during youth, is manifested in the lives of all great men; and it would be almost possible to decide on a man's general character from the place where he lived, and the scenery that surrounded him; and yet, however much the distant scenery may have moulded the more matured mind, its effect is not to be compared with that of the immediate surroundings of the cradle and homestead upon the more pliant mind of youth. Can we expect the highest developments

from one, who, struggling through youth in a hovel, is turned on to the world at some advanced period of life to fight for himself! Or to particularize a little more, and to select one of our New England farm houses as an example; what beneficial influence will that homestead exert upon the finer feelings, where the sole motto is, "Money makes the mare go," or "A penny saved is a penny gained;" where not only thrift is taught, but where is seen the daily practice of storing in some stocking end, old desk, or bank vault, those dollars, a few of which would have tightened the cracks in the barn, rehung the door, reset the decaying fence posts, repaired the paling or destroyed the hedge of nettles, burdock and wild lettuce that disputes the entrance. Is not that father to blame, who, by neglecting all out door ornament, has lost all vestiges of beauty and comfort to the homestead, so that the growing boy is ashamed to own that it is his home? Does the son or daughter neglect one bit of house or farm work in order to beautify the front yard, train the vine over the window, or eradicate the weeds from the pathway?

On the contrary, do we not all know that the time devoted to such things, *when once the beginning has been made*, is "between whiles," and never missed? And have we not all seen the speaking eye, and swelling heart of the child at the gate, when passing strangers have stopped to notice and praise the farm-house, as embowered amidst flowers, shrubs and trees, its pretty vine-clad porch has met the view?

Less often would the lad leave the half-finished supper of a summer eve for the country store, were there a little weeding or tying to do in his sister's garden; how proudly he would cull his Sunday nosegay for the little girl around the corner, and half-chokingly whisper the invitation to come and see *our garden*. It is not often that we see in country villages attempts at real gardens; it is commonly some stray corner that cannot be used for anything else, or some bit of border grudgingly spared, that is devoted to flowers—but wherever it does exist it sets the example to all, and gives a certain degree of character and elevation, to the house to which it belongs. In our American homes too much attention has been paid to the "almighty dollar;" and though some few pinks and a stray rose or two, border the front walk, most get no farther, and meet the argument of beauty, &c., by the unanswerable rejoinder, "it won't pay! won't pay!" Indeed, if measured, even in *money value*, it will pay. Somehow a connection with the culture of flowers gives a delicacy and refinement to the most boorish, and the more earnest the love for them, the more sure are other refinements and cultivation to follow. It is really surprising to notice how soon after *even our rough* Irishmen are introduced into gardens and green-houses, they begin to soften and humanize, and thus stand ahead of all their brothers. Certainly no one will be found to deny that in America, education is of the highest value; we all know how difficult it is to induce boys and girls to study; they are too fond of play; but teach them to love flowers, and not only to love them for their beauty and fragrance, but for their relation to all other animated life; show them how mysteriously they are formed there in the earth, and coming up into daylight, grow and wax by a hidden power, not one whit less marvellous than that which developes men and animals; show them that it is not only for their particular worth they are to be prized, but because—

"There's never a leaf or a blade too mean
To be some happy creature's palace;"

show them that each flower has not its *single insect* dependent upon it for *its* support, and that just as in its weakness and diminutiveness it contributes to the welfare of the animal kingdom, so in *its* strength and might does the oak, and with it all other trees.

In this way you may arouse their curiosity; you may lead them along till they find themselves enwrapped in the love and study of natural history, and from that how short a step to all other knowledge; for it is not the *ground covered* so much, as the *habit gained*, of application. Were no farther benefit obtained than polish of manners, few would doubt of the moneyed value of the acquisition; for were it the market gardener, the plowman, the shop-keeper, or professional man, he will gain most wealth, who, other things being equal, has most refinement of manners.

In farming communities, however, too much work devolves upon the males, to allow them to devote a great deal of time to gardening, or to the arranging and caring for flowers; the most that can be expected of them will be, the doing the rough work in spring and fall, and they must leave to the females the remainder. No work can be more consonant with the best idea of woman, than the culture of flowers, and to them all but heavy work might be left. So predominant a thing, however, is fashion, that but too often, many who would like to have gardens of their own are deterred because they think it will *look* strangely to be seen working in them. *Care nothing about looks!* Be assured you will get more health, strength and *looks* into the bargain, by devoting a portion of each day to flowers, than by bending over fancy work, or devouring the last new novel. What ever is true in the country, where like seems not to breed like, and where because the men work in the field, the women feel they may not be partakers of any out of door employment, it is less so in cities and large towns, where very many take the entire charge of their flower gardens during the year, with the exception of the spring digging, and who, bringing to their aid their usual taste and skill, seem even to surpass themselves in all rivals of equal advantages. In close connection in the world of letters with this kind of occupation, is botany, which seems of all the sciences to be the only one specially adapted to woman. For in it there is none of the labor of the geologist or the dirt of the chemist. But it is an investigation of the rarest beauties of nature, accompanied with an entire freedom from all that makes learning disagreeable,—offering the attractions of sun and fresh air, flowers and fruit, and at the same time giving a width and comprehensiveness of mind unsurpassed by any other study. We pass most naturally and easily from the garden darlings, to the wild flowers; from the idea of them as plants, to their connection with the animal world; taking some one plant as our type, we may name and arrange hundreds of others that before we could know nothing of, beyond the fact of their existence and general appearance.

In the garden, too, the tired husbandman may stroll, the day's work over, and at the same time he rests his wearied limbs, refreshes his whole physical man, and instructs his mind.

Here too, is the favorite play-ground of childhood, and better here, by far, than amongst the laboring men or by the road-side with the idle loafers of the village. And when the mother needs change and pleasure, after she has laid aside broom and duster, where better may she turn her steps than down paths fringed with roses and lilacs; now stopping to train a broken or straggling branch or pluck a flower; or revel in the warm sunshining and summer breeze,

Thus far the garden has been treated, as though there were but one kind. Such is not the case, and it were best to divide it under different heads. First, "Flower and Kitchen Garden," then Flower Garden, into the artificial and natural, in either of which we may have flower borders, beds, in parterres, shrubbery, vines or trellises, &c., and in close connection with which may be hot-houses, conservatories, or mere house and lawn, or yet simpler still, farm-house and front fence.

For the present we will leave the subject, to be recommenced at the consideration of the true flower garden, as it best accommodates particular localities.

R. M. COPELAND.

*Jan.*, 1854.

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*For the New England Farmer.*

## PROMOTION OF AGRICULTURAL IMPROVEMENT.

Whoever takes a retrospective view of the agriculture of Massachusetts during the last quarter of a century, must be convinced, that greater progress has been made in this fundamental branch of human industry, during that period, than in all previous time.

While heretofore, agriculture has, in some measure, been looked upon as a pursuit that might well be left to the least informed, it is now assuming that rank among the professions of men, which it must in the future, always hold. Underlaying, and upholding all other pursuits, it should receive that encouragement and support, which its intrinsic merit demands. Among the prominent causes, which has given an impetus to this pursuit is the publishing of able papers devoted to the subject, and the establishment of agricultural societies.

Although the county societies have done much to effect an improved husbandry, and all that their limited means will permit, still, there is very much more desirable to be done. The time seems to have arrived when each county society should have a farm upon which stock shall be reared from the most valuable domestic animals, which this, or any other country affords. Upon which reliable experiments shall be made in the cultivation of crops, and the most profitable manner of feeding animals. Where the most desirable varieties of fruit trees shall be planted, and their adaptedness to the locality tested. Where the most valuable grains and vegetables shall be produced. Where exact experiments shall be made in the application of the various fertilizing materials in the production of plants. In short, from whence the whole agricultural community, shall see, by example, the best mode of culture, and be able to obtain the best animals for the improvement of stock. While the county societies are doing what they may for the promotion of agriculture, it is hoped and believed, that there are in the community men of opulence, and of a generous public spirit, who, when they see what some of these societies are most desirous to do, will, sooner or later, make such a donation as shall enable them to carry into effect so important an object. Such a gift for such a purpose would give new energy to agriculture, and be a monument to the memory of the donor, more enduring than pillars of granite, or inscriptions in "eternal brass." Fortunate would be the society so favored, and happy the individual whose name would be remembered, while ages roll away.

*Lynnfield, Jan.* 9, 1854. ESSEX.

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## A MODEL FARM—WHO WILL ESTABLISH IT?

MASSACHUSETTS stands conspicuously among the States for her enterprise, wealth, and benevolence. Her industrious children have conquered and enriched her hard and rocky soil, built up beautiful villages and pleasant homesteads all over her land, busy with the hum of wheels, the blows of hammers and the earnest activity of thousands of ingenious heads and hands. She has erected cities, from whose ports she sends out ships unsurpassed in their fleetness and in the comforts they afford their occupants, and which enrich the world by the articles of warmth and industry which they convey from the hands of her artizans to the remotest shores. Her merchant princes and good men have aided in the establishment of noble institutions to ameliorate the condition of the unfortunate, to preserve the morals of the young and tempted, to elevate the arts and sciences by establishing schools for the encouragement of their devotees, and in providing the means for the education of all. The world will always be the better for the munificence of her PERKINSES, APPLETONS, LOWELLS, LAWRENCES, LINCOLNS, SHAWS, PEABODYS, BATES, and many others of enlarged and liberal views. They have done well, and their memories are embalmed in the hearts of a grateful people, a monument more enduring, and of a thousand fold more value, than rocks or metals piled together for the elements to beat upon and crumble into dust.

Wherever we go we are reminded of their benevolence by the libraries, asylums and institutions of learning which they have originated or sustained. But in the midst of all these, the interests of agriculture—the great interest underlying and sustaining all the rest—have been overlooked.

It is a universal feeling all over our State, in the minds of our young men and women, that the pursuit of agriculture is not as profitable, genteel, or honorable, as most other kinds of business. This springs from a want of knowledge of its true character. This impression must be eradicated, and how to accomplish it is the problem to be solved.

We believe this may be done in a great measure by establishing one or more *Model Farms* in each county in the State, where all may see what re-

sults can be obtained in this noble Art, by a combination of system, energy and skill, sustained and encouraged by ample means, where some of the best minds, both among males and females, may be thoroughly educated for every branch of husbandry, and be made acquainted with the books and lives of the distinguished leaders in rural industry.

There is no place among us now where this can be done. The county societies are limited in means, and can only encourage the common operations of the farm. Few, or no, long-continued experiments are made in the breeding of stock, in the various crops of grains, fruits and roots, or in the analysis, draining, and general management of soils. In their action, the farmer sees no associated effort upon single points where ample means command the largest experience, the most patient investigation and the ripest learning to unravel their mysteries.

Here, then, is what we need. Who among our opulent men, men of enlarged views, whose hearts swell with the desire to be useful to those who shall come after them, will lay the foundation of an institution from whence shall flow perpetual blessings to the sons of toil? Whose memory shall be cherised in the hearts of our children, and in those of their posterity, as the benefactor of the masses, and who opened unto them the gates of knowledge?

We are confident that the good old Commonwealth has many gentlemen who would gladly aid this good cause if some definite plans were laid before them, and they could see that their bounty would really aid the efforts of the farmer in obtaining a better knowledge of his occupation. Similar thoughts are uttered in another column of this paper by one of the most intelligent cultivators in Essex county. Who will second these suggestions?

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FRANKLIN COUNTY SOCIETY.—The annual meeting of the Franklin County Agricultural Society was held on Saturday, January 7, and the following persons elected its officers for 1854:—

HENRY W. CUSHMAN, *President.*
JOSIAH FOGG, LUCIUS NIMS, *Vice Presidents.*
H. G. PARKER, *Secretary.*
W. T. DAVIS, *Treasurer.*

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CONNECTICUT STATE AGRICULTURAL SOCIETY.—We believe the good people of this State are still without any State organization to encourage the pursuit of agriculture. In the last number of *The Examiner*, published at Norwich, in which the agricultural portion is ably conducted by our occasional correspondent, Mr. CLIFT, the subject of a State Society is strongly urged, and a Constitution set forth. An annual meeting was to be holden on the 11th instant. They purpose to have model farms, and the constitution requires the holding an Annual Cattle Show and Fair. Press the matter vigorously, friends.

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*For the New England Farmer.*

## THINGS AWAY UP IN VERMONT.

LAMOILLE COUNTY.

MR. EDITOR:—The time was when almost all from *Varmount*, who happened to get strayed away down as far as your city, were called "*rather green;*" and many the jokes that were played on them; but sometimes they got an "*appropriate*" reply. Well, they could not naturally be otherwise than "green," as they "grew up" in the green valleys, with the "green mountains" and hills all around them. "But things are not now as they used to be;" for time has wrought a change in the "face of the land," and also in the *heads* of the people. It is now *known*, as can be seen by your reports of stock, produce, &c., compared with that from other States, that there is something valuable in Vt. Lamoille county, though it does not contain so many "broad acres," as some other counties in the State, and though it is intersected by two of the loftiest ranges of the green mountains, contains as good land for farming as there is in the State; and in it lies one of the most beautiful and lovely valleys in New England. This valley lies between the two ranges of mountains that intersect the county, north and south; is 8 or 10 miles wide, generally level, the soil *excellent*, easily to be worked and free from stone,—unlike some parts of New England. Stowe, the most southern town in this valley, that lies in this county, is one of the handsomest and best in the State. Morristown, north of it, extends to the valley of the Lamoille River, and is about equal to Stowe in beauty and excellencies as a farming town. The Lamoille River passes west through the centre of the county, and has some very good falls for propelling machinery. The falls and cascades at Morristown are exceedingly beautiful and romantic; and there is a *chance* for extensive manufacturing establishments. A little of your Boston capital and energy would make the waters that pass here tell something beside their babblings; though there are now some improvements. Hyde-park, the shire town, (25 miles north of Montpelier,) lies north of Morristown and the Lamoille, and is a good farming town. This town is celebrated for "growing" hops. They "calculate" that the expenses of cultivating and harvesting an acre, after the first year, are about the same as an acre of corn. They plant about 1000 hills to the acre and get 2 lbs. to the hill, in a good season, which would be 2000 lbs. to the acre, and at the present prices, 40 cts. per lb., would amount to $800. Pretty good pay for cultivating an acre of land.

The valley of the Lamoille contains some excellent farming towns. Johnson and Cambridge, down the river, are very good. There are other towns in the county excellent for stock, dairy, &c. Some of the "back places," and the sides of the mountains, are covered with beautiful forests, which will be more valuable at some *future* time than at present; though wood and lumber have advanced in price within a few years. The farmers, in this vicinity, now have something to en-

courage them to do well, (encouragement is *something* to a *farmer* as well as to an *editor*,) for their produce, stock, dairy, &c., have advanced from 25 to 50 per cent. within a few years; and they can get cash too. Many have learned that it will pay to improve, as well as work their farms; for those farms that have been well cultivated, are now worth one-half more than they were a few years ago. One great cause, that has advanced the prices of farm produce here, is the facility to get it to market, since the railroad came through this vicinity. Such clumsy fellows as potatoes, even in this cold season, are sent to your market, weekly, from "these regions;" and the farmer takes the cash for them at his door at prices nearly 100 per cent. higher than he once could. Ten or fifteen years ago, the farmers here could seldom get cash for many kinds of their produce, and when they could, it was at such prices as would not recompense. Now, everything they can raise "is good as cash in hand," and at "fair prices." Formerly the goods, brought from "your town," and elsewhere, by the merchants, were sold, many kinds, 25 to 50 per cent. higher than at present. Most farmers then bought on credit, to be paid in produce, after they could raise it. The merchants charged 25 per cent. or more than for "cash down," and when the farmer brought his produce, he did not realize but small pay for his labor.

Many a farm had to be mortgaged, and at last go into the hands of the merchants by such dealing. Now almost everything the farmer can raise brings cash, at prices 25 to 50 per cent. higher then formerly, while many kinds of the merchant's goods are as much lower, which makes quite a difference in footing up the farmer's account; and his profession is now considered as profitable and honorable as any. The farmers here now take courage, and there can be no mistake, that improvement in cultivating the soil is advancing.

And there is also an improvement in the minds of the farmers, as regards that profession, else they could make none in the soil; for no one can do a thing till he *knows how* to do it, and we hope many a farmer is striving to obtain that knowledge which gives power to his profession. Yet there are some old fogies who think they know it all now, and that their experience supercedes all scientific investigation. All improvements in the arts and sciences have had opposers, even by those whose interest it was to encourage and protect, and there are many who still plod along in the "same old beaten path," and say there is no use to try to do more than what has been done to improve agricultural *business*. But the dark cloud, that has lowered on the brow of many an honest farmer, must eventually be dispelled by the bright rays of intelligence, that now shine through the whole land.

There are influences in *operation* that *cannot* be resisted. The hundreds of agricultural societies and journals in the union are obtaining, and spreading broad-cast through the land, that knowledge which must *sometime* influence and benefit every farmer. Already is that influence greatly felt even away up in this back corner. Many a farmer has received "much good" by perusing the *N. E. Farmer;* and many more might receive, in useful knowledge, if they would take and read that excellent paper, 500 per cent. on their money *advanced*. MILAN.

*Morristown, Lamoille Co., Vt., Jan.* 1854.

REMARKS.—The other portion of your article, not being particularly connected with the foregoing, will be given at another time. Imbue all others with your own spirit and the occupation of farming will soon take a different hue.

## FIRST AGRICULTURAL MEETING,

AT THE STATE HOUSE, JAN. 17, 1854.

At the close of the series of the Legislative Meetings at the State House last winter, Mr. FLINT, the Secretary of the State Board of Agriculture, was requested to call this opening meeting to order, and take the preliminary steps for its organization: but being detained by sickness and the pressure of other duties, Mr. PROCTOR, of Danvers, called the meeting to order, and nominated Col. WILDER to act as Chairman for the evening, and he was elected.

On taking the Chair, he expressed his gratification at being present upon the opening of another series of these interesting meetings, his hearty co-operation in their objects, and willingness to take part in their deliberations whenever it might be in his power. He spoke of the benefits of a free interchange of opinions in a familiar manner, and of the encouragements to the friends of the cause in the manifest progress of the last year, in the new interest evinced by nearly all classes of our people. He said that a gentleman had already expressed a willingness to contribute fifty thousand dollars towards the establishment of an Agricultural school, whenever the Commonwealth would appropriate double that sum for the like purpose. He then spoke of the improvement in the implements of husbandry, the use of guano in restoring exhausted lands, of the great increase of the crops common to our soil, and the earnest desire of all to promote the great Art.

The meeting was further organized by the election of an Executive Committee to consult and co-operate with Mr. FLINT, the Secretary of the State Board, in arranging the business of future meetings. This committee consists of Messrs. BROWN, PROCTOR, FRENCH, SPRAGUE, SMITH of the Senate, RUSSELL, and SEWALL of the House.

Messrs. SIMON BROWN and WILLIAM J. BUCKMINSTER, were elected Secretaries.

The President then called upon Professor NASH, of Amherst College, who was accidentally present, and who had recently returned from an agricultural tour in Europe, to favor the meeting with some remarks relating to his visit. Mr. NASH said he was unwilling to occupy the whole, or a large portion of the time of this meeting—believed it would be better employed by a free interchange of thoughts among practical farmers—would however say a few words about his recent tour in the British Islands.

He landed at Portsmouth on the 10th of June—

found it beyond his expectations a strongly fortified place—after strolling an hour or two among the long guns of its ramparts, and surveying the naval station at Gosport, and looking out upon Britain's wooden walls, floating majestically on the neighboring waters of the Spithead, he was impressed more strongly than an American well can be at home with the desirableness of perpetual peace and amity between England and America.

A subsequent visit to Woolwich, Chatham and other military stations served but to deepen this impression; not that America has anything to fear from England or from any other quarter; for so long as she pursues her mission of developing the resources of a new world justly and peaceably, she has nothing to fear from abroad, nothing out of herself; but you no sooner set your foot on the soil of England than you begin to feel at home; on the broad ocean you had felt that you was far away, but in England you feel at home; it is impossible not to recognize the people there as brethren; you look at a name over a door, it is the name of your nearest neighbor; you look over the next door, there is the name of your best friend; you look over a third, and see your own name, over a fourth is the maiden name of your wife; something very like this had happened to the speaker again and again. It was impossible not to feel at home and among brethren in England; and then again so kind and respectful are the feelings of Englishmen towards Americans, that, if one has anything in the shape of a heart in him, he cannot help praying that there may be peace and friendship forever between us and them. War would be a *family* quarrel—the worst of all quarrels to heal. It would be fratricide. If any gentleman here does not feel this, he could not see England's power, or enjoy her hospitality without feeling it.

The speaker could not forbear from stating, that Englishmen had often said to him; "we hear that your school-books are full of revolutionary tales calculated to inspire hatred against us." They said "*we* are not the men who sent armies to burn your cities and slaughter the inhabitants; we no more approve the counsels of Lord North, or the weakness of George III. or the brutality of some of his officers than you do." The charge with regard to our school-books is partly true, and the evil should be remedied at once.

At 12 o'clock on the same day of landing, he took the ferry-boat for the Isle of Wight; landed at Rye seven miles from Portsmouth; found this a beautiful and thrifty town; fell in here with an old friend from America, and agreed to take a pedestrian tour with him over the island, considering that, however, as a pedestrian tour which consists in riding on coaches and walking alternately. From Rye we went to Newport, which is the geographical centre of the island and the largest town on it. Here we spent the Sabbath; and after twice attending church as we would have done at home, we visited East and West Cowes, ship-building stations on the north side of the island. In this visit we passed down the east bank of the Medina. This led us by the Queen's palace Osburne House, and the residences of many of the English gentry on this island. From East Cowes we crossed the river to West Cowes, and returned to Newport by the west bank of the river. On Monday morning we visited the house where the last effort was made to treat with the unfortunate Charles II—an interview in which English loyalists would say, he completely outwitted his enemies, but in which English freemen would say that he exhibited such a dogged hostility to the people's rights as rendered him worthy of his fate. From this old building, now used as an academy, we went to Carisbrooke Castle, an immense structure, the residence of royalty, at times, for some fifteen hundred years. Here we were shown the room in which Charles I. was long imprisoned, and from which he was taken to London, where he was condemned and beheaded. Wherever you go in England, you find reminiscences of this unfortunate king; and everywhere you find the conflicting opinions of him before alluded to. From Carisbrooke, we continued our tour far towards the west end of the island, turning thence south, and passing along the southern coast and the eastern back to Rye. This took us through the best agricultural parts of the Island, as good perhaps as any in the British Islands, if not in the world.

The land in this island, amounting to perhaps 100,000 acres, is all beautiful, much of it eminently good. The scenery is exquisitely fine, alternating beautifully cultivated vales with gently swelling hills there called downs and fed by almost numberless southdown sheep. The land is divided into farms of from fifty to seven or eight hundred acres, and some larger, embracing several thousand acres. The staple vegetable products are turnips, barley and wheat; the animal products are beef, mutton, wool and pork. The Isle of Wight is often called the garden of England. Its exquisite beauty entitles it to the name; and in addition to feeding a population of some sixty thousand people, it sends immense amounts of produce to London.

The farms in this island are generally divided into large fields. The plow-share of reform has been driven through the old, wide-spread hedges, cutting farms into many small lots, and thus covering, as in many parts of England, yet unreformed in this respect, one acre in twenty-five of the land, and sheltering game enough to consume a large per cent. of the crops. Nothing can be conceived more beautiful than the cultivation of this island.

The hedges are almost uniformly so trimmed as to occupy but little land; scarcely a weed could be found on the island. A general rule in leasing land is, not to permit the growing of two white crops in succession. The owners are also shy of oats. They regard oats as an exhausting crop; in traversing the island, you see here a field of wheat covering forty, sixty or one hundred acres; then a like extent of turnips, a field of barley, or a patch of oats, or scarcely one of flax. In one place you see five hundred or one thousand acres of down (rolling hill land) grazed by thousands of sheep; and near by meets your eye a rich valley, fed by scores of fine Durhams, Herefords or Devons.

Amid so much that is so bright, beautiful and cheering, one thing grieves the American who comes here, to the very heart;—agricultural laborers are not half paid. Nine shillings sterling (about $2,12,) per week is the uniform price paid for farmer labor. The laborer boards himself. The land being let in large portions to the great farmers, it is impossible for him to get a few acres, or a patch even, to cultivate on his own account. In nine cases out of ten, the sole dependence for his family is in his wages, unless his wife works in the field, or he has children old enough to draw wages. There is terrible oppression, and yet it is hard to say who is the oppressor. One can hardly find it in his heart to blame any one.

The intercourse of the landed aristocracy with the tenant farmer seemed to us kind and generous; nor could we say anything worse of the tenant farmer than that he, in accordance with a general mercantile principle, buys his labor as cheap as he can. The fact is, the evil is the result of a state of things, for which the farmers are not alone responsible, and which is now in a rapid process of reform. Labor on the farm is now rising in price, in most parts of the kingdom, especially in portions intermingled with mercantile and manufacturing interests, so that now farm laborers in the vicinity of large towns are getting 12, 13, 14 and in some cases as high as 15 shillings a week; though still, in the purely agricultural districts, as in the Isle of Wight, wages remain as low as nine shillings a week. The laborers in these districts have not yet found out that wages have risen; it will be years before they will; but the time will come, thanks to America and Australia, rather, thanks to Divine Providence, when labor in Great Britain will be fairly rewarded.

The President then called upon Isaac Davis, President of the Worcestor County Society, who drew most interesting comparisons between the modes of culture and building in this country and England and France.

Amasa Walker, late Secretary of State, spoke upon several topics, but particularly in relation to the importance of agricultural lectures in the town lyceums, and that efforts by the State Board to furnish lecturers would prove of signal benefit.

Dr. Reed, from Berkshire county, also spoke of the importance of more attention to agricultural matters, by the citizens of the towns in Farmers' Clubs.

Mr. Dodge, from Worcester county, spoke particularly of the improvement which had been effected in plows, and of the effects upon the old homesteads of the State by the introduction of so much foreign labor.

Mr. Lawton, from Berkshire county, at a late hour, made some pertinent remarks, and then the following question:—Is the increased culture of *Indian corn* worthy the attention of the farmers of the Commonwealth? was announced as the subject for discussion on next Tuesday evening, when it is expected His Excellency the Governor will preside.

There were an unusual number of active and earnest gentlemen present, and the meeting pass with great spirit and gratification to all.

The meetings are free for the attendance of all, and it is hoped that our agricultural friends, and indeed, all others, will avail themselves of this opportunity to gather, as well as to impart, valuable information to others.

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*For the New England Farmer.*

## PROFITABLE COWS.

Mr. Editor:—I noticed at the time, the account published in your December number, of the Alderney cows, owned and exhibited at the last Middlesex Fair, by Mr. Elijah M. Reed, of Tewksbury. My attention has since been particularly called to the statement of Mr. Reed, as evidencing, in a high degree, the superior quality of this stock for the dairy. I conceded the great value of the animal—and the large yield of milk and butter, but did not consider it so unusual as to be astonishing. Nay, I insist that the records of our Shows for the last few years would, taking into consideration the *feed*, show a better result. With your leave, I will submit the proof to my friend through the columns of your paper. Mr. Reed's statement is, that in 7 days of May, and 9 days of September, 16 days in all, his cows yielded 195 qts. of milk, which gave 30 lbs. 4 oz. of butter; so that, taking, an average of both trials, there was a yield of 12 qts. of milk daily, producing a daily average of 1 lb. and 15 oz. butter. The fractions I have discarded throughout the comparison.

This yield was upon the generous keeping of 2 qts. of meal per day. Now let us see whether or not the Worcester cows are left entirely in the shade by this lady of foreign blood.

I prefer, in making the comparison, to go back a number of years, so that, if it be said the comparison is with *chance* cows, it will be seen that we have a *good many of them*.

In 1844, Mr. H. B. Leach, of Grafton, exhibited at our Show a cow, of what breed we are not informed, whose daily average from the 10th to the 20th of June was, omitting fractions, 14 qts.

milk, and 2 8-10 lbs. of butter. How she was fed does not appear.

In 1846, a ½ Ayrshire cow of WM. EAMES, of Worcester, gave, taking the required trials of June and September together, a daily average yield of 14 qts. milk, and 1 lb. 14 oz. butter; this was upon *grass* only. A cow of what we call native breed, (but undoubtedly of mixed blood,) was exhibited in 1848, at the Worcester Show by myself, which, for the 9 first days of June, gave an average yield of 18½ qts. of milk, and of over 2 lbs. of butter daily, and for the first 9 days of September, an average of 13½ qts. of milk, and of 1 lb. 11oz. butter per day. Her feed was a small supply of corn fodder in addition to pasture. No meal or shorts was furnished her.

In 1849, Jos. A. REED, of Princeton, exhibited a cow at our show, whose average daily yield for 20 days, the first 10 of June and of September, was 12 7-10 qts. of milk, and 1 lb. and 14 oz. of butter. This cow had no meal.

In the opinion of the committee for that year, the best cow was exhibited by the late Hon. JOHN W. LINCOLN, (now owned by me,) whose daily average, for the first 10 days of June, was over 15 qts. of milk and 2 lbs. 2 oz. butter, and for the first 10 days of September, of over 14 qts. of milk, and a trifle more than 1 lb. 15 oz. of butter. This cow was furnished nothing save what she gathered for herself in the pasture.

In 1850, a cow was exhibited by me, whose daily average for the first 9 days of June and September, being 18 days, was 1 lb. 10 oz. butter.

In 1851, HORACE CHENERY, of Worcester, exhibited a cow which during 10 days of June, and 10 of September, gave a daily average of 15 qts. of milk, and 1 lb. 13 oz. butter.

In 1853, H. P. REED, of Princeton, exhibited a cow, whose daily yield for the first 10 days of June and September, averaged over 14 qts. milk, and more than 1 lb. 13 oz. butter.

None of these cows had meal furnished them. What they would have yielded had they had, as Mr. Reed's, "*through the winter* 2 qts. of corn and cob meal, 1 qt. of shorts and good hay per day,—in *summer*, good pasturing with the *addition of grain* (how much!) occasionally through the drought in July and August, and 2 QUARTS OF MEAL PER DAY, *while we were testing the properties of her milk for butter*," of course can only be conjectured.

I might extend this comparison much farther, by going into other counties of the State. But enough has been done, I think, to satisfy the doubts of my friend.

After all, no one would more highly prize an Alderney than myself, and, if their price were within the means of an every-day working farmer like myself, no one would sooner purchase them.

I should like to see an account of the yield of *one* running with a herd of cows, and kept, not as our farmers are too apt to keep their stock, half weighed down by the manure which clings to their sides, but kept as all animals should be, *clean* and *warm*, and fed on good hay and roots through the winter, and furnished with good pasturage *only* through the summer. A comparison between an Alderney, and one of any other breed of cows, would then be of some value.

Yours, W. S. LINCOLN.

*Worcester, Jan.* 4, 1854.

REMARKS.—We are exceedingly obliged to friend LINCOLN for the above "string of facts" in relation to the Worcester cows. Such facts are encouraging to us who cannot afford to pay the high prices which are demanded for foreign stock, and will induce us to pay more attention to such as is produced within ourselves. These representations, made as they are by gentlemen of close observation and undoubted integrity, in different parts of the State, will produce the results so long desired, viz.—better care of our native stock, and a better knowledge of the comparative merits of the various breeds among us.

## FARMING, AND OUR NEW GOVERNOR.

We have attentively read the Message of our new Governor to the Legislature, and find that, while all the other interests of the Commonwealth have been considered, *Agriculture*, which is the basis of them all, is not noticed. Well, as faithful chroniclers, we will endeavor to show the people that the Governor is right—that the capital invested in Agriculture in the State is so *insignificant* as not to be worth mentioning in a grave state paper in which the interests of the people are discussed; we will give the facts and figures, at any rate, and then let the *farmer*, who is considered competent to look after his own interests, while the merchant and manufacturer need the fostering care of the government,—we will let the farmer, we repeat, judge for himself.

In the year 1850, the improved land of the State amounted to 2,133,436 acres, and the cash value of the farms was $109,076,347; the farm implements and machinery were worth $3,209,584; the value of the live stock was $9,649,710; and the value of the wheat, rye and Indian corn of that year, was $2,857,732, to say nothing of the hay, fruit and root crops, which would be as much more. These sums find the farmer investing capital and producing crops in a single year to the amount of *one hundred and twenty-seven millions, six hundred and fifty-one thousand, one hundred and five dollars!* But then this interest is too small to be brought before the assembled wisdom of the Commonwealth; or it may be considered dangerous, and likely to override, and crush all the other industrial pursuits.

The other principal industrial pursuits gave for the same period, in capital invested and goods produced in the cotton and woollen manufacture, in pig iron, castings, wrought iron, malt and spirituous liquors, and tanneries, an aggregate of *eighty millions, three hundred thousand, nine hundred and fifty-four dollars*—leaving a balance of *forty-seven millions, three hundred and fifty thousand, one hundred and fifty-one dollars*, in favor of the industry of the farmer. We do not intend, now, to go into an exact statement of the comparative value and importance of the pursuits of our people—

it is not necessary to our object. We have not mentioned above, the products of many occupations, such as the manufacture of boots and shoes, willow and wooden ware, many other things; neither have we taken into account, on the other hand, the oat and barley crops, beans, peas, early vegetables, strawberries, and other small fruits, the great staples of butter, cheese and milk, and the important articles of timber and fuel. If all were fairly stated, we believe there would still be a large credit to the farmer, beside that found above.

Then we have in the Commonwealth, a *State Board of Agriculture*, composed of representatives from all the county societies, together with three persons appointed by the Governor and Council. This Board was established by the Government of the State, sanctioned by it, and has continued to receive something of its attention and care, and His Excellency the GOVERNOR, His Honor the LIEUT. GOVERNOR, and the Hon. SECRETARY of the Commonwealth are members of the Board! But from this Message the people of the Commonwealth will learn nothing of the condition, or existence even, of this branch of the Government.

Nor do we desire to array one class of our people against another, or to excite discontent in any; all their varied pursuits are necessary to promote the wealth, dignity and glory of the Commonwealth. We only say this—that the farmer and his interests have been, and still are, neglected, by those whom they place in power; that his occupation does not hold that estimation in the public mind which its importance merits, and that until his interests *are* regarded, and his claims to the common respect acknowledged, our voice shall be heard in his favor so long as we have power to speak.

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*For the New England Farmer.*

## TRANSACTIONS OF THE HAMPSHIRE AGRICULTURAL SOCIETY.

AT AMHERST, 1853.

This young and promising society is starting ahead of most others, in their annual publication. If we do not mistake, it will be found a work of much interest. The address by Rev. Mr. Huntington of Boston, is one of the happiest we have ever perused. It amuses and instructs at the same time; without any pretensions to superior knowledge, he hits the nail directly on the head. It must have produced a decidedly favorable impression on his hearers. What is most creditable to the society, all the people of the vicinity, *female* as well as *male*, engaged in the exhibition. More than *one thousand entries* were made for the premiums offered. The Reports too, are not the hasty effusions of the moment, but well considered and arranged essays from gentlemen fully competent to the service. Where such a feeling exists, progress is certain. Older societies must wake up, or the younger will run away with the laurels. X.

*January 8th*, 1854.

*For the New England Farmer.*

## FARMING BY STEAM, HAY-MAKING, &c.

MR. EDITOR:—That the Americans, as a body of men, or "Yankees are a fast people," no one can doubt who has watched the course of events for the past few years. Not content with applying steam power for railroads, steamers, and stationary engines, &c., it then must be applied for farming purposes, such as carting manure, plowing, sowing seed, and so on, and in a few years all our heavy farming will be done by "steam," so that very little "hand labor" will be necessary on the farm.

We have been led to these remarks in reading an article, a short time ago, in the "*New York Tribune*," on "Hay-making by Steam." The writer says, "Let the grass be heaped up as fast as cut, and covered with an India rubber cloth. Then a pipe from a steam-boiler, mounted upon a wagon, may be inserted under the centre of the pile, and steam applied to a degree of heat strong enough to almost cook the whole heap, at any rate to prepare it for rapid sun drying. We believe, from some experiments which we have seen in drying other vegetable substances, that green clover may be prepared in three hours for safely stowing away in the barn. By using metal caps instead of cloth, the process of steaming may be continued to a degree sufficient to expel all the moisture. Whether it can be used economically upon the farm, is the point which we wish to see settled, and that is what the agricultural societies should determine. Steam has already been applied to carry manure to the field, plowing the ground, and threshing the crop. No doubt it will soon be applied to sowing the seed and reaping, as well as mowing, and it only remains to cure the green grass as fast as cut by the same powerful agent.

This is not a chimera unworthy of thought. It is a subject which, sooner or later, will attract the serious attention of that portion of farmers who do think, &c. We confess that this plan of curing green grass in heaps into dry hay by a "steam boiler," carted around the meadow on wheels is the last operation in hay-making out. In all our experience in hay-making, the very best agent that we have yet found for curing hay is "old fashioned sunshine," and a plenty of it. Some seasons we are cut short of that "agent," to a great extent, by cloudy weather, and then we have to resort to air and wind, and also by curing hay in the heap by natural heat.

The plan of curing hay in the "heap" has been practised by many farmers for the last forty years. And in case of clover hay it should be invariably cured in that way, and stirred as little as possible till made. And in case of very hot, dry seasons, we are inclined to think that if all grass was one-half cured in the heap, it would be an improvement in quality of the hay. Still, the main dependence for hay-making is "sunshine;" not for one or two hours only, but until the hay is well made. And whoever lives twenty-five years hence, will see sunshine in as great demand for hay-making as now, "steam boilers" to the contrary notwithstanding. As for plowing by steam, we are aware that this plan has been strongly recommended by some "theorists" for several years

past, but we know not of the first trial ever being made in this country. If we mistake not, a trial was made in England, of steam-plowing, but it turned out a "failure and a humbug," as we should very naturally expect. There are, probably, some farmers, that can use a small, stationary steam engine to grind feed, move a threshing machine, straw-cutter, and wood-sawing, perhaps, at a cheaper rate than by horse-power. But in nine cases out of ten, we believe that the horse-power is the cheapest, most effectual, and the best power that can be used on the farm. As to carrying manure to the fields by steam-power, we suppose an allusion is made to Mr. Mechi, of England, whose experiments, in reducing solid manures to liquids, and then forcing them through iron pipes to different parts of the farm by a steam-engine. But according to the testimony of many English farmers, Mr. Mechi, as yet, is only an experimenter and a learner, and should not be considered a teacher, until he has had more experience in the business. We repeat what we have often said before on this subject, that we are not half as anxious that steam-engines should be introduced on farms to do farm-work, as we are that farmers themselves should improve in the business. We believe that there is already more improved farming implements in our "Agricultural stores," than farmers will make practical use of in the next fifteen years to come, to say nothing of steam-engines. We have no idea that labor-saving machines on farms, will so supercede hand labor, but that hand labor will always be in great demand on the farm. It is not always a safe rule to judge of improved farming throughout the State, by visiting our implement stores and seeing the various improved tools for farming. For it is one thing to bring out new implements, and the next thing is to have them put to use on the farm.

Yours, &c. L. DURAND.

*Derby, Ct., Jan. 5th*, 1854.

## FRANKLIN CO. PREMIUMS.

We copy from the *Greenfield Gazette and Courier*, the statement of Messrs. STEBBINS, of South Deerfield, SMITH & SONS of Sunderland, and POWERS, of Hadley. The *Gazette* says "the statements of these model farms are very interesting, and show that farming, when rightly conducted, is the most profitable of all pursuits.

It will be observed that these premium farms are all small in the number of acres. That of Mr. Stebbins, who took the first premium of $20, contained forty-one acres. The amount expended on his farm for labor, interest, &c., was $848 50, the products $1940 25, leaving a net profit of $1091 75. The following is the substance of his statement:"

When I came in possession, in 1831, ten acres of it consisted of a poor-worn out buck-wheat field. In 1838, I resolved to have a better farm. I hauled on clay, at the rate of fifty loads per acre. Then, I spread twenty-five loads of manure to the acre; sowed two hundred pounds of plaster; plowed all in together; planted corn, and obtained a fair crop. At the outset, I tried but three acres, by way of experiment; and, after witnessing the result, I continued until I had treated the ten acres alike. After corn, I planted oats, and stocked down to clover.

By use of clay and manure, I have made all my land as good as the best, and increased my pastures one hundred per cent. in quantity and quality of feed. I have practised plowing deep and do so, now, but in a different way from my former practice. I now plow in manure four or five inches deep; then subsoil as deep as I can run a subsoil plow. I prefer this to running deep, in order to turn up the subsoil. I commonly plant my land two years in succession; thereby mixing soil and manure, and pulverizing the soil for grass. Instead of oats, I raise barley, which I deem far more profitable to the farmer. Where we made one hundred loads of manure in 1838, we now make three hundred and fifty loads. I haul from seventy-five to one hundred loads of earth into my barn and hog yards, annually, to absorb the liquid manures, which I consider as valuable as the solid. I think much of hogs for the manufacture of compost manure. I have used salt with good results, on both grass and wheat. For old, worn out pastures, I recommend the free use of plaster, and for fruit trees, I apply salt and lime, freely, and wash often with white ley.

My farm has been divided, the present year, as follows: twenty-three acres of mowing; thirteen acres in corn and potatoes; three in barley and two in wheat. My stock consists of three pairs of oxen; three steers three years old; five cows; seven two years' old; three yearlings; one hundred and fifty sheep and twenty-five hogs.

The farm of Austin Smith and Sons, who took the 2d premium of $15, contains seventy-three acres, thirteen of which are in pastures. The amount of expenditures was $1788 65, of products $3029 15; net profit $1240 50. They say:

It is our practice in raising Indian corn, to plow, or harrow in manure, at the rate of twelve or fifteen loads to the acre, and to apply a handful of ashes, in the hill, at planting. We hoe four times, and usually seed the land with clover, red top, and timothy, for the next year's mowing.

We have put compost manure for broom-corn, in the hills, at the rate of sixteen loads to the acre, until the present year; when we have applied it, as on our Indian corn land, at the rate of twelve loads to the acre. We added half a spoonful of superphosphate of lime and plaster in the hill. We planted our broom-corn with Woodard's corn-planter, and we have never known our land so well and uniformly stocked as the present year.

We prefer, for a wheat field, to turn over a rich and warm clover sward. Oats, we have nearly done raising. We plow from six to nine inches deep, and loosen the soil a little deeper each succeeding year. We usually make about three hundred and fifty loads of manure, every season.

Mr. Loomis of Whately, who drew a premium on an apple orchard, made the following statement:

My orchard contains over 100 trees, a part of which were set in 1844, others in 1847, and the remainder in 1848. The holes were dug six feet in diameter and about two feet deep, and filled with a compost of swamp muck and barn yard manure. The trees were carefully set in the spring of the year, which I consider preferable to fall setting. I have not lost a tree.

LEONARD LOOMIS.

*Whately, Nov. 7*, 1853.

## MASS. STATE BOARD OF AGRICULTURE.

TUESDAY, JANUARY 17, 1854.

Board met at the State House. Present: His Excellency, the GOVERNOR, the LIEUT. GOVERNOR, and SECRETARY of State. From those appointed by the Gov. and Council, MARSHALL P. WILDER, and from the counties; Messrs. BREWER, of the Hampden, BROWN, of the Middlesex, CLAPP, of the Franklin, DODGE, of the Worcester, FRENCH, of the Norfolk, LAWTON, of the Housatonic, PAGE, of the Bristol, PROCTOR, of the Essex, REED, of the Berkshire, SMITH, of the Hampshire, and SPRAGUE, of the Plymouth, societies.

After the reading of the proceedings of the last meeting by Mr. FLINT, the Secretary, a brief discussion ensued relative to the farm connected with the Reform School, at Westboro', and then the Secretary commenced the reading of his first Annual Report of the Board. The reading was continued through the day, but often interrupted by animated and most instructive discussions by the members of the Board. The reading and discussions continued through the day, until a late hour, when the Board adjourned.

WEDNESDAY, JANUARY 18.

Reading of the report was resumed, and after being continued two hours, was suspended for the transaction of other business—when, on motion of Mr. PROCTOR, it was

*Voted*, That the committee appointed to confer with the Trustees of the Reform School at Westboro', be authorized to make all such arrangements as they may think advisable, and to join in such petition or recommendation for authority from the Legislature, as may be necessary for this purpose.

THURSDAY, JANUARY 19.

The reading of the report was resumed, and occupied most of the day, and was not concluded, when it was laid aside for the transaction of other business. It was then

*Voted*, That in the opinion of this Board, if it shall be deemed expedient by the Legislature to grant acts of incorporation for agricultural societies, the geographical limits of such societies should be distinctly defined, so that no two societies hereafter to be entitled to the bounty of the State, shall cover the same territory.

*On motion*, MARSHALL P. WILDER was requested to prepare and report to the Board an Essay on the Culture and Preservation of Fruit, and a similar vote was passed requesting HARVY DODGE, of Sutton, to report on the culture of the Turnip.

*Voted*, That the services of CHARLES L. FLINT, Secretary of this Board, have been faithfully and efficiently performed, and his discharge of the duties of his office meets the entire approbation of Board. The Board then adjourned.

## PEACH TREES.

The large crop of peaches last year destroyed a great many trees; almost all orchards show the effects of it in their broken and dangling branches. These should be sawed off now, if not already done, and the heads of all those not broken down *headed in*. We give below from COLE'S Fruit Book, a description with illustrations, of the proper manner of performing the work.

UNPRUNED.

"Prune peaches in fall, or early in spring. The fall is preferable, as by the reduction of the top, the tree will be less exposed to injury. Prune at the extremities, by cutting off one-third, or, when very luxuriant, one-half of the last growth. This mode is called *shortening-in* or *heading-in*, and it is most conveniently performed with stout shears, having long, wooden handles.

Trees pruned in this way will bear earlier, and produce larger, fairer, and better fruit, and larger crops to the acre, if set near, as we have recommended; and this mode will prevent over-bearing, by reducing the blossom-buds, and save the expense of thinning the fruit. It will also keep up a constant succession of new wood for the next crop, for the fruit is on the previous year's growth.

This is by far the best system of pruning, as it keeps the trees low and close, saving them from destruction by excessive crops, heavy winds, damp snow, sleet, and ice. It also economizes room, by many trees to the acre; it promotes health, vigor and longevity, and a constant production of good fruit.

SHORTENED-IN.

This system is now becoming general, and highly useful. A tree *shortened-in* is covered with fruit and foliage, like the neat small figure; while the *unpruned tree* (or that pruned only at the trunk) presents the deformity of naked branches, with the fruit and foliage only at the extremities, like the large, ugly figure, first given.

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AGRICULTURE AT FRAMINGHAM.—We had the pleasure of meeting many of our friends at Framingham on the evening of the 16th inst., at their Lyceum and Farmer's Club. There was an ad-

dress and afterwards a discussion on the question —"*How can farming be made so profitable and attractive that farmers' sons will choose their fathers' occupation?*" Messrs. P. JOHNSON, C. CAPEN, C. R. TRAIN, Major WHEELER, SIMON BROWN, THOMAS GOULD, WM. BUCKMINSTER, and others, took part in the discussion, and many valuable facts were elicited. We are glad to find the citizens of that wealthy and beautiful town so earnestly engaged in promoting the interest of agriculture.

## EXTRACTS AND REPLIES.

### MILK WEED—MOWING MACHINES.

Can you tell me of any practicable method to destroy *milk weed?* I have it on my farm, and it is increasing very fast. (*a.*)

Are you acquainted with the *mowing machines* now in use, and will you give me your opinion which is the best? I have come to the conclusion that I must have one for the next season, and it is very important to get the best. (*b.*)

*York, Me.* CHARLES MOODY.

(*a.*) Thorough cultivation will eradicate *milk weed, sorrel, white weed,* (ox-eye daisy,) and *thistles,* from a single field; but if milk weed prevails in the pasture lands, and springs up, as we have sometimes seen it, extensively, under the walls and other places where the soil is not cultivated, you must cut them down about the time of their flowering, and persist in it as often as they spring up. They will not live long, deprived of their stems and leaves.

(*b.*) In the *Monthly Farmer*, vol. 4, p. 370, you will find an engraving of *Ketchum's Mowing Machine,* and in vol. 5, p. 457, a description of the machine, and the manner of working it, by Mr. K. himself. Not having yet used any of these machines, we can only give the opinion formed by seeing several kinds, and by what others have said of them. This opinion is that the machine spoken of above is the best yet introduced. They are manufactured and sold by Messrs. Ruggles, Nourse, Mason & Co., who have the right for New England. In their *Illustrated Catalogue* (a copy of which we have requested them to send you) you will find a faithful drawing of the machine, with some testimonials of its qualifications. It is our intention to try one of them next season.

### MAPLE SUGAR.

GENTS:—Below you have an answer to "Who can beat this?" Your humble namesake, RUEL SMITH, made this season past, 4250 lbs. maple sugar on his farm, and in this town was made the same spring, 135,000 lbs.! A. B. C.

### COUNTY SOCIETIES.

DEAR SIR:—I should like to see an article thoroughly canvassing the merits of County Agricultural Societies—giving instances of their practical benefit, the best mode of conducting the same—officers and committees necessary—mode of conducting fairs—systems of premiums, &c., also presenting the obstacles to their formation, success or practical value—and objections to them entertained by any. I have taken your paper the past year, and have been entirely satisfied with, and prize it the more highly as it eschews long, often repeated personal controversies, which so readily find access to some other papers.

B. F. RANDOLPH.

*Freehold, Monroe Co., N. Y.*, 1854.

REMARKS.—Who will gratify our correspondent and thousands of other inquirers, in the particulars mentioned. Having his thoughts turned to the subject, cannot he write the article himself, as well, or better, than any other person? We hope he will try.

### A LITTLE, YOUNG, SUFFOLK PIG.

MR. JOSEPH RAYMOND, of Hubbardston, writes us that Mr. JOHN BROWNING, of that town, killed a Suffolk pig on the day that it was *nine* months old, "which weighed when dressed and well dried off, *four hundred and eighty-five pounds!*"

### A FINE PIG.

Mr. JOSIAH W. PETTIGREW, of Ludlow, Vt., slaughtered a pig on the 6th of Dec. which was 247 days old and weighed 356 pounds!

### THE CONCORD GRAPE.

In reply to the inquiries of the *Gospel Banner*, whether the new grape introduced by E. W. BULL, Esq., "is the Isabella," we have to say that it is not, nor a seedling of the Isabella—nor like it, "being of different shape, larger, handsomer, and better," as was pronounced by good judges at the Mass. Horticultural Society, who tested both at the same time.

In his *Magazine* for December, Mr. HOVEY says:—"It has not only proved by far the earliest grape we have, but also one of the most delicious, having, in the place of the musky flavor of the Isabella, the rich aroma of the Catawba, with which probably its parent was somewhat fertilized." We have tested the grape for two years past and have confidence in the statements made of it.

### PASTURE BRAKES.

Inquiry by T. J. LEONARD, *Weston, Vt.* "How shall I destroy the common pasture brake?" Well, we don't know—it is a hard subject to deal with. If it grew in bunches, or the hassock form, you might undermine them with the bog hoe; but if it is what we suppose you mean, the brake that springs up in nearly all moist lands that are not cultivated, the common *pteris aquilina*, you will find it a difficult plant to eradicate short of plowing and thorough cultivation. Try a thick spot of them with a liberal sprinkling of salt spread on in January, and next summer, when in bloom, try another patch by mowing them off as closely as you can. Burning will not destroy the roots unless the burn is very deep. We shall look to you for some reliable information in relation to the subject.

To ISRAEL HERRICK, *Derry, N. H.* We reply to your queries as to what books we would recommend for the inquiring farmer, with a great deal of pleasure. A few only will be mentioned, viz.: —Downing's Fruit and Fruit Trees of America; Dana's Muck Manual; Elements of Scientific Agriculture, by Norton; American Muck Book; Rural Architecture, by Allen; Fruit Garden, by Barry; Bridgeman's Gardener's Assistant and Kitchen Gardener's Instructor; Rodger's Scientific Agriculture, and Elements of Agricultural Chemistry and Geology, by Johnston; the Farmer's Companion, by Buel. The list might be considerably extended, but these would make a good beginning.

COMPLIMENTARY.

"The great subject of agriculture is attracting more and more attention every day, and I am truly glad to see that it begins to assume the importance that it really deserves. Your paper, which comes promptly every week, is full of the right kind of matter, and if the tiller of the soil, with such a help in his hands, fails to learn, then I shall think there is not much hopes of this generation. You have undertaken a vast work, and I should think in some respects, a discouraging one, for even in this 19th century there are those so 'old fogyish' that they are not willing to practice or believe anything they may see in a book or newspaper. I am glad to know that there are those who do appreciate your labors.

*Newton Centre*, 1854. J. F. C. H."

REFINING CIDER.

DEAR SIR:—If you will give a friend the best method to *fine cider*, and say whether any article should be added to prevent it from growing hard, I am confident you will oblige many.

A SUBSCRIBER.

If you wish to be very nice with it, filter through sand, add half a pint of mustard seed to each barrel, in a long bag, so as to leave room for it to swell. After standing in the tightly-closed casks several months, rack and bottle, but do not drive the corks until the cider has stood in the bottle 24 hours.

GRAPES.

"Which are the best grapes—the Concord or the Diana? and which make the best wine."

*Bedford, N. H.* P. M.

The Concord grape has been pronounced by many good judges to be superior to the Diana. It has not the musky flavor of the Diana, but a rich aroma instead, which is to most people more agreeable. It is very thin skinned, has an abundant juice, and makes an excellent wine. We understand it will be for sale by HOVEY & Co., by the first of April next, and will be advertised in the papers.

The Concord grape is said also to surpass the Diana in its more vigorous growth and bearing. The Diana has been growing for four years past by the side of the Concord, and does not bear one-sixth part the crop which the Concord grape does.

PREMIUM FOR FARMS.

"We have often thought, that one of the best modes of encouraging the farmer, was to offer premiums for the entire management of the farm. This view is supported by the result of such offers in the County of Hampden, the present season. Three competitors appeared.

| | |
|---|---|
| Mr. Stebbins, on a farm of | 40 acres. |
| Mr. Smith, on a farm of | 73 acres. |
| Mr. Powers, on a farm of | 87 acres. |
| Amounting to | 200 acres. |
| Mr. Stebbins states his nett profit at | $1091,75 |
| Mr. Smith states his nett profit at | 1240,50 |
| Mr. Powers states his nett profit at | 1165,25 |
| Amounting to | $3497,50 |

or an average of more than $17 per acre. Who will say that this is not a fair income from lands that can be purchased for less than $100 the acre? Who will say there is no profit in farming?"

WHAT EARLY IMPRESSIONS DO.

The extract below is part of a letter from a firm doing an extensive business in one of our cities, whose reputation for energy and integrity is well known to all in our Commonwealth, and whose business operations are extended to nearly all the marts of trade in the civilized world. See what they say for rural life. We emphasize a few words by inserting them in italics.

"As we were born farmers' boys, we took our first industrial lessons in riding horse to plow, dropping corn, driving cows to pasture, or 'jocund drove the team afield,' and *are indebted for what of energy we have, and love of labor, to just that training*. Although our tillage is mainly in other fields, our early associations and primitive tastes remain with all the fervor of a first love, and having our gardens, to which we have lately added five or six acres, 'suitably divided into mowing tillage, pasture and woodland,' we are grown young again, and have to express our obligations for the welcome weekly visits of the *N. E. Farmer*."

Yes, valued friends, and what is more than growing "young again," you will never grow old in the garden; employment there is perpetual life. The tenement you occupy may by-and-by falter and fail to do the soul's bidding, but the spirit itself will still dwell in the green pastures beside the still waters, until it passes on to its higher and holier state.

A CRITICISM.

We have before us a letter from a correspondent, signed "CONSISTENCY," saying some good things of ourselves, and indulging in some criticisms upon those who would impress the public mind, if they could, with the idea that we are mere "book farmers," knowing little or nothing of the practical operations of the art. The criticisms are severe, but just, but we shall withhold them at present, believing that in pursuing our plain path of duty, regardless of the carpings of the ill-natured, we shall in the best manner sub-

serve the interests of our readers. The extract which we make says—

"As to your being book-farmers, that *may* be opinion rather than a matter of fact. I asked an eminent agriculturist (a man of discrimination and sound judgment, who has been President of one of the most thrifty county societies in this State, and as such reflected honor upon himself and the society,) which paper published in this State, he would recommend a farmer to take to aid and assist him in his calling; he answered without hesitation, *The New England Farmer*.

THE POTATO DISEASE.

The Rev. Lyman Smith, of *Charlotte, Vt.*, writes us that he has prevented the rotting of potatoes by sprinkling the tops with ashes, as soon as they made their appearance, a table spoonful to each hill, and after hoeing applying the same amount again. The ashes were applied immediately after a shower, or upon a heavy dew. After such applications he has had no rotten potatoes.

THE WHITE DAISY.

Joseph W. Newton, *Norwich, Vt.* The best way to kill out the *white daisy* is to plow deep, manure well, and cultivate carefully. Where the plant is not very thickly set it is often weeded out, but it requires considerable patience and perseverance. Cattle will not feed it down, and standing in the grass fields, you cannot cut it when in bloom, so as to injure it, nor poison it with salt or any other nostrum that we know of. The plow, manure and hoe, with some new plant introduced, will gain you the victory. With regard to your other inquiry. We consider *clover* the best plant to plow in as a green manure. Turn it under, not when in its most green and succulent state, but when the heads are turned a little brown; that is, when it first begins to decline. Sinclair says an acre when in flower, yielded him 20,418 pounds, containing 717 pounds of nutritive matter. Theroots are nearly as valuable as the top.

Levi Shed, *Hillsboro', .N H.* Plow your meadow as deep as you can with two pair of oxen, early in August; pulverize it with the cultivator and harrow into as fine a tilth as possible; manure with barn manure if you can—if not, apply 300 pounds of guano per acre, broadcast, and harrow in with the seed. An application of ashes would be highly beneficial. Would it not be better to take up one or two acres each year, and work and manure thoroughly, than to attempt more?

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Farming in New England.—The especial attention of the reader is called to the article of "D. C.," in this number, and to other papers which will follow this on the same subject. The writer is well informed on the topic he has chosen, and writes with such directness and force, that his article will be read with both pleasure and profit.

## SECOND AGRICULTURAL MEETING,

At the State House, Jan. 24, 1854.

Subject.—*Is the Increased Culture of Indian Corn worthy the attention of the Farmers of this Commonwealth?*

The meeting was called to order by Mr. Flint, Secretary of the Board of Agriculture, who stated that the Governor was prevented from being present by indisposition, but that he would take pleasure in attending whenever his health would permit.

Whereupon Mr. Seth Sprague, of Duxbury, was called to the chair; Mr. Sprague announced the subject for discussion, and offered a few remarks thereon.

The subject of the cultivation of *Indian Corn*, he said, was one of great importance to the farmers of Massachusetts. It is a native product of our soil, and has always been a principal crop with our farmers. We could cultivate it with greater profit than at present, were it not for the facility with which it can be raised in the great Mississippi valley, where it costs not more than fifteen or twenty cents per bushel. Yet we have the advantage of transportation in our favor, which keeps corn here as high as fifty or sixty cents per bushel.

We have much to learn in regard to the varieties to be planted, as well as regards the modes of culture. There has been a great advance in this respect within a few years. The crops have been doubled; we must plant less, manure and cultivate better. Corn he considered one of the best materials for fattening cattle he knew of, probably better than oil cake. Nothing imparts more strength and power of endurance to cattle.

[Mr. Flint suggested to the meeting whether it would not be desirable to have lectures not exceeding three-quarters of an hour each, at these meetings, on practical subjects, to be followed by discussions; stating at the same time that the State Board of Agriculture had voted to furnish $100 to defray the expense of the lectures, if they were desired by the meeting.

Mr. Simon Brown advocated the measure, and moved that the Executive Committee secure lecturers for such occasions as they saw fit.

The motion was carried.]

The discussion was then resumed, by Dr. Reynolds of Concord, at the invitation of the President. He said, Johnston's table of the nutritive matter yielded per acre, when cultivated in different crops, if reduced to data corresponding to the crops yielded by our soils in New England, though somewhat different from his results, cannot fail to throw some light upon this subject.

Johnston takes thirty bushels of corn to the acre as the basis of his calculation. But land with us that will yield 25 bushels of wheat or 50 bushels of oats, will yield 50 bushels of corn. Our

Agricultural Societies have not, for years past, given a premium for corn to less than from 70 to 100 bushels to the acre, and no good farmer will be satisfied with less than 50 bushels. We will therefore take 50 bushels for the ground of our calculation. Johnston adopts 60 lbs. to the bushel as the standard weight. This is 4 lbs. more than our standard weight, but Massachusetts corn will weigh 60 lbs. as often as 56. We will therefore take 60 lbs.

50 bushels of corn at 60 lbs. the bushel, will weigh 3000 lbs. One bushel of corn by his analysis yields 53⅜ lbs. of nutritive matter. The nutritive matter in one lb. then will be represented by 161-180 of a lb. or 14½ ounces nearly.

The nutritive matter in 1 lb. of meal is by the same analysis 11 2-10 oz. nearly. 25 bushels of wheat at 60 lbs. the bushel, is 1,500 lbs. Then we have 3000 lbs. of corn at 14½ oz. to the lb., and 1500 lbs. of wheat at 11 2-10 oz. to the lb. Now if we multiply the number of pounds of corn by the ounces of nutritive matter in a pound, and the number of pounds of wheat by the number of ounces of nutritive matter in a pound, we shall have the amount of nutritive matter yielded by the two crops respectively.

3000 x 14.5 = 2718¾ lbs.
1500 x 11.2 = 1050 lbs.

Difference, 1668

in favor of the corn, or considerably more than double the amount of nutritive matter in the acre of wheat. We call the wheat straw equal to the corn straw, which we think about a fair estimate.

There is another view of this matter which we ought also to present.

25 bushels of wheat at $1,65 per bushel will amount to $41,25. 50 bushels of corn at 90 cents will be $45, leaving a balance of $3,75 in favor of the corn—which will just about pay the additional expense of cultivation.

Thus if the crop is to be sent to market, the wheat crop, considering the smaller cost of transportation, is quite as valuable as the corn crop. For the feeding of stock or hogs the corn crop is worth more than double the wheat crop.

If we institute a similar comparison between the corn crop and the turnip crop, we shall ascertain their comparative value. We will take half of Johnston's estimate, 15 tons to the acre, as data, and we shall have 3600 lbs. of nutritive matter from the acre. Now if we add to the nutritive matter in the corn that which is contained in the stover—viz. 1020 lbs., we shall have 3738 lbs. of nutritive matter in the corn crop, which is 138 lbs. more than that in the turnip crop. Carrying on the same analysis, we find that a pound of turnips contains 1 11-16 ounces of nutritive matter to the pound, while a pound of corn contains 14½ ounces. Then one pound of corn is equal in nutritive matter to 8¾ lbs. of turnips nearly.

If we reckon turnips at 50 lbs. to the bushel, we shall have one bushel of corn equal to 10 bushels and 20 pounds of turnips. If corn is worth 90, then turnips are worth a fraction less than 9 cents a bushel, for consumption. Turnips have been worth from 25 to 30 cents a bushel this winter in this market. If we take 12 tons of turnips to the acre, which we think a truer basis for our calculation, we shall have 858 lbs. of nutritive matter in favor of the corn crop. If we allow 15 tons of turnips to the acre, the oil in the corn will be more than double that in the turnips, and on this the fattening property essentially depends.

If we compare clover hay, at 2 tons to the acre, we shall have 2420 lbs. of nutritive, to 3738 lbs. of nutritive matter in the corn crop. We find that 1 lb. of clover hay yields 8¾ ounces of nutritive matter to the lb., nearly, making 120 lbs. of clover hay fully equal to a bushel of corn. Then when corn is 90 cents a bushel, clover hay should be worth $15. For as 120 lbs. of hay are to 90 cents, so are 2000 lbs. to $15.

I know it has been said that 1 lb. of meal is equal to 4 lbs. of good hay. If so, yankee farmers would not use hay worth $20 per ton, when the nutritive matter which it yields is worth but $7,50 compared with corn. The fact is, that 2 lbs. of good hay is about equal to 1 lb. of meal. This makes hay worth $15, when 60 lbs. of corn is worth 90 cents. At the present prices, we had better use more corn than we do. Meadow hay, at one ton and a half per acre, by which, I suppose, Johnston means other kinds of cultivated hay than clover, yields 1720 lbs. of nutritive matter, less than half the nutritive matter contained in 50 bushels of corn, including the stover; meadow hay yields 8 4-21 ounces of nutritive matter to the lb.—a fraction less than clover.

Johnston makes the oat crop yield more nutritive matter than the wheat crop; but he calculates from oats at 42 lbs. to the bushel. If we take oats at 32 lbs. to the bushel, we find that the nutritive matter contained in 50 bushels, including the straw, is 2183 lbs., something more than one half the value of the corn. I have not spoken of the potatoes, from the uncertainty of the crop; could we be sure of 27,000 lbs. or 600 bushels to the acre, we should have 5385 lbs. of nutritive matter—1647 lbs. more than in the corn crop.

Major Wheeler, of Framingham, considered corn, at the present prices, 95 cents to $1,00 per bushel, as a very profitable crop, for almost any farmer can raise 50 bushels to the acre, and the stalks are excellent for cattle, better than hay. He thought it best to cultivate corn on a flat surface. The land should be plowed deep, and the corn planted two feet apart one way and three the other.

Mr. Brown, of Concord, expressed the belief

that Providence intended the corn crop should be a principal one in New England, and for several reasons. In the first place, our climate is admirably adapted to its cultivation. Our dry and hot summers perfect the corn crop when other crops fail. He considered it one of the most beautiful crops that grows. In every part of New England it may be raised for 50 to 60 cents per bushel, and in the event of a general war in Europe, now extremely probable, a great and unusual demand will be opened for it for some time to come. Even now, our exports of breadstuffs are large, and have amazingly increased over last year. The exports from the port of New York from Jan. 1st to the 19th in the years 1853 and 1854, were as follows:

| | 1853. | 1854. |
|---|---|---|
| Wheat, bush. | 151,419 | 442,648 |
| Corn | 16,002 | 265,076 |
| Flour, bbls | 65,691 | 150,342 |

Making an increase in the value exported in two weeks this year, over last, of $1,247,800. In view of these facts, and the probable increased demand, Mr. Brown thought it would be good policy for New England farmers to pay especial attention to the crop. He considered the fodder obtained from corn-fields, yielding 50 or 60 bushels to the acre, as worth as much as the average crop of English hay we cut to the acre.

Major Wheeler said he used to think the corn crop a very exhausting one to the land, but now he felt convinced that there was no crop less exhausting.

The Chairman stated that much attention had been devoted in Plymouth county, to the raising of corn, and with great success, yields of 100, 120, and even 145 bushels to the acre being attained. The corn is planted closely, not more than two feet apart. Some have planted two feet apart one way and 18 inches the other, and succeeded well. On certain kinds of soil, when planted closely, the corn, will shade the ground, which is better than to expose the soil to the heat of the month of August, particularly if it be high land. Yet he would not recommend as a general rule, or as a matter of economy, the planting of corn less than three feet apart. The corn planted in Plymouth county has a small stalk, with a full large ear.

Mr. Sheldon, of Wilmington, believed that corn did better when planted closely. If the land is well manured, there are not so many suckers, when planted in this manner. On two lots of which he was cognizant, the thickly planted corn did better than that which was planted with longer intervals between. He believed that a good fair acre of corn fodder, contained as much nutriment as an acre of hay, and he thought that raising corn was a good preparation of the ground for hay. It will draw more from the land than hay, but nothing in comparison with other crops.

Mr. Proctor, of Danvers, thought the corn crop was worthy of increased attention, because it was one of the most *certain* crops. True, we sometimes lose the crop by frost, as in 1816, and perhaps once or twice since, but it is very rarely the case. It is as certain, if not more so, than any other crop of grain we raise. With increased attention to culture, our average crops would be increased 50 per cent.—they could be brought up to 50 bu. per acre. Mr. Proctor alluded to the difficulty which has been experienced in ascertaining the amount of a crop, from the lack of a standard measure, and stated that the Board of Agriculture had decided that 80 lbs of corn, as taken from the field in the ear, constitutes a bushel. But when this corn is fit to grind it will have shrunk 20 per cent. One consideration which favors the raising of corn, is that the drought occurring in August and September, which is so annoying to farmers, may be counteracted by raising green corn for fodder, which is the best article that can be fed to cows. The quantity that can be raised has hardly any limit. After cutting his hay, the farmer can turn the sod, and plant corn. The farmers of Essex County regard it as the best mode of guarding against drought.

Mr. Lawton, of Berkshire County, stated that the committee of the Housatonic Ag. So. selected a rod in a lot of 40 acres of corn offered for premium,—that rod being neither the best nor the poorest in the lot, but as near an average as they could judge—and reckoning from the yield of that rod, the amount per acre was a trifle over 100 bushels per acre. He considered corn fodder excellent for cattle; it will make a cow give more milk than anything else. The corn used in Berkshire is the yellow 12 rowed corn, resembling very much the Dutton. Would plant three feet apart and four kernels in a hill. Turn the furrow over flat and harrow down, and then plant the corn with a mixture of ashes and plaster.

Mr. Buckminster inquired whether some other variety, as the sweet corn, although less bulky, might not contain more nutriment than the Southern corn?

Mr. Dodge, of Sutton, offered a few remarks enforcing the advantage of plowing deep for corn. He would plow 11 inches.

The Chairman, then, at half past 9 o'clock, announced the subject for next Tuesday evening, as follows, and the meeting adjourned:

"*What can be done to make the Home of the Farmer more attractive and agreeable?*"

It is expected that there will be a lecture at the next meeting.

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Measuring Corn.—To measure corn in the ear in a crib: Multiply the length, width and depth of the bin together, and their product by 4½. Cut off the right hand figure, and the remaining figures will be the number of bushels of shelled corn, and the figure at the right, the decimal of a bushel.

# JOHN SAUL,

## WASHINGTON CITY, D. C.,

Has to offer to his Patrons and the public, the subjoined list of Nursery Stock. The whole is of finest description, in the best order, and will be sold reasonable.

200 Cedrus Africana, 6 to 9 and 12 to 18 inches.
1,000 " deodara, 1 year seedlings.
500 Cedrus deodara, 6 to 9 and 12 to 18 inches.
200 " " 2 to 3 feet.
500 Funebral Cypress, 4 to 6 and 6 to 9 and 9 to 12 inches.
1,000 Junipers English, 6 inches.
1,000 " " 1 to 2 and 2 to 3 feet.
1,000 Pinus excelsa, 1 year seedlings.
500 " " 9 to 12 and 12 to 24 inches.
8,000 Scotch Firs, 8 to 9 inches.
200,000 Silver Firs, European, 4 to 5 and 6 to 7 inches.
50,000 " " " 7 to 8 and 8 to 9 inches.
10,000 " " " 1 to 2 and 2 to 3 feet.
2,000 " Webbiana, 4 to 5 and 5 to 6 inches.
560,000 Norway Spruce, 4 to 6 inches.
500,000 " " 6 to 8 inches.
50,000 " " 9 to 12 inches.
10,000 " " 1 to 2 and 2 to 3 feet.
3,800 Yews, English, 6 to 9 and 9 to 12 inches.
1,000 " Irish, 1 to 2 feet.
10,000 Larch, European, 4 to 6 inches.
20,000 " " 1 to 1½ 2 to 3 and 3 to 4 feet.
3,000 Currants, Red, Dutch and Grape.
2,000 " Victoria or Houghton Castle.
2,000 " White Dutch and Grape.
2,000 " Black Naples.
10,000 Gooseberries, Best Lancashire Varieties.
5,000 Raspberries Fastolff.
4,000 " Antwerp, Red and White and Magnum Bonum.
2,000 Plums, all the leading varieties, strong.
80,000 Pear Stocks, strong, 1 year.

Catalogues can be had on application.

JOHN SAUL.

AGRICULTURAL

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Of PLOUGHS—we have the greatest variety of kinds and sizes.

Improved Sod Ploughs, for flat furrows—improved Scotch Ploughs for lapped furrows—improved Stubble Ploughs, which are especially adapted to deep tillage, or varying from 6 to 12 inches in depth.

Self-sharpening, Hill Side, Sub-soil, Double Mould, Corn, Cotton and Rice Ploughs.

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Illustrated Catalogues sent gratis on application, post-paid.

RUGGLES, NOURSE, MASON & CO.

Boston and Worcester, Mass., Jan. 1, 1853. tf.

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WARRANTED FREE FROM DAMPNESS.

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All Safes sold under the name of "Salamander," "Wilder's Salamander," and "Improved Salamander," are spurious unless marked *patent*.

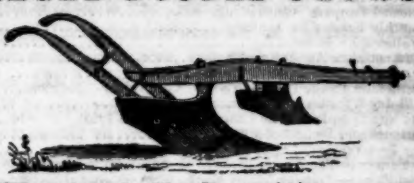
LEGAL DECISION.—The public are informed that after a full trial in the Circuit Court of the United States, Messrs. Edwards & Holman have been found guilty of violating the patent held by the subscribers for the Salamander Safe. The subscribers understand that Messrs. E. & H. now make and sell, under the name of "Improved Salamander Safe," an article filled with some other substance than the patented filling, and that the Safe thus made is not the true Salamander Safe, and has never been tested as such.

WILLIAM ADAMS & CO

Dec. 3, 1853 1y

THE BOSTON AND WORCESTER

# EAGLE DOUBLE PLOWS.



THE superior merits of these Plows consist in

1. The mode of attaching the forward mould-board to the beam, by which great strength and durability are secured, as also the various desirable changes in debt of work and relative depth of each plow, the same being regulated to any shade of nicety, with perfect facility:

2. The entire and handsome overturning of the sod furrow, by the forward mould-board, to the extent of the whole width of furrow taken by the plow, placing it beneath, out of the way of the teeth of the harrow, cultivator, or other implement, so that it is in no case dragged to the surface in the after cultivation of the crop:

3. The thorough and finished work done by the rear mould-board, in taking up its furrow of under soil and sifting or scattering it over the inverted sod, so as to entirely fill to the surface, and at the same time break open any undue cohesion of the soil, leaving the plowed land in a perfectly pulverized condition, requiring little labor with the harrow or other surface-working instrument,—and indeed, in all tolerably free loams, rendering the use of these instruments, as pulverizers, quite unnecessary:

4. The remarkably light draught of the plow, in proportion to the amount of work and the thoroughness of pulverization accomplished.

Several sizes of the BOSTON AND WORCESTER EAGLE DOUBLE PLOW, are made by the subscribers, from patterns of their own original invention. They invite their friends and customers to examine these Plows, as to quality and durability of material, thoroughness and finish of construction, and to test their working properties.

Manufactory at Worcester, and Warehouse, Quincy Hall, over the Market, Boston.

RUGGLES, NOURSE, MASON & CO.

April 30, 1853.

# Oyster Shell Lime.

THE subscriber has been induced, at the request of several of his friends in the farming interest, to enter into the manufacture of SHELL LIME, for farming purposes, and is now prepared to deliver at any of the railroads in Boston or Charlestown, the article in lots of from 10 to 100 barrels, at the low price of 35 cts. per barrel, or if taken at the kiln in Medford Street, Charlestown, at 30 cents. The money must be sent with the order.

Also, for sale, 100 barrels Thomaston Lime, in lots to suit purchasers.

Application may be made at No. 76 State Street, Boston, or at the Kiln, situated on Gould's Wharf, (so called) Charlestown.

JAMES GOULD, Agent.

☞ The shell lime made into mortar, with four barrels of sand to each barrel of lime, will make a cement of better quality than the best of Thomaston lime, for cellar walls or stone work of any kind.

It also contains double the quantity of Phosphate of lime than is contained in stone lime, consequently for farming purposes is much the cheapest.

March 26, 1853.

# Muriate of Lime,

A superior article for top dressing Grass Lands, put up in barrels and delivered at the railroads in the vicinity. Proportion about three hundred barrels to the acre.

March 21, 1853. tf. JAS. GOULD.

# Garden Seeds.

WE respectfully solicit the attention of purchasers of GARDEN SEEDS to our extensive st ck, which we offer for sale. We have all sorts of Vegetable Seeds that have proved worthy of cultivation; also, Grain, Grass and Flower Seeds. All the varieties are raised and selected expressly for our trade, and we do with confidence recommend them to all who desire to procure seeds that will prove true to their names.

☞ Catalogues gratis, on application.

RUGGLES, NOURSE, MASON & CO.,

Jan. 1. Over Quincy Market, Boston.

# Bound Volumes.

BACK VOLUMES of the NEW ENGLAND FARMER, elegantly bound in Muslin, Gilt and Embossed, are now for sale at this office.

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## Ground Bone.

THE attention of the Scientific Agriculturists and others, is invited to a new article of ground bone. Bone manure has long been known to be the most fertilizing article in use, not excepting even guano, but there has always existed a difficulty in pulverising it so that it will speedily and powerfully operate on the soil—at a cheap rate. That difficulty has at length been overcome, and the article is now offered in its pure and most efficient state, ground to any desired fineness, and at the same time retaining all its ammonical and gelatinous matter, constituting the fertilizing qualities, which causes this manure to be so superior to all others; and another consideration in its favor is, that it can be furnished to order fresh ground, retaining all its virtue, at a very short notice, and at a reasonable rate. All orders addressed to the subscriber will meet with prompt attention, and all necessary information furnished by

JOSEPH MORRILL,
No. 6 South Market Street

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## Super-Phosphate of Lime,

IN bags and barrels, made by C. B. DEBURG, a warranted pure and genuine article, with full directions for use. For sale by GEO. DEVENPORT, 5 Commercial, corner of Chatham St., Boston, agent for the manufacturer.

Also, for sale, Ground Bone, Bone Dust, Burnt Guano, and Grass Seeds of reliable quality.

March 20, 1853. tf

## Patent Gutta Percha Pipe,

FOR PUMPS, AQUEDUCTS, &c.

THIS material has been in use upwards of five years, and the sales are constantly increasing. The material is free from all the great objections to metal pipes.

Refer to Cushing & Mack, Lowell, J. N. & M. Barr, Nashua, Geo. M. Barrett, Concord, Mass., A. Littlefield, Milford, Mass. For sale at wholesale and retail by

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Is published on the first of every month, by JOHN RAYNOLDS and JOEL NOURSE, at Quincy Hall, South Market St., Boston.

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FREDERICK HOLBROOK, } Associate
HENRY F. FRENCH, } Editors.

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FOR simplicity of construction, facility of management, cheapness, durability and profit, this Hive stands unrivaled. It furnishes *complete protection* against the encroachments of the Bee-moth.

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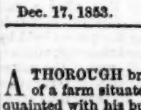
Premiums were awarded to this Hive at the Mechanics' Fair in Boston, and at the Plymouth Co. Ag. Fair in 1853. It receives the unqualified approval of every Bee-Keeper who uses it. A circular containing a description, cut, &c., of the Hive, sent to any address, if a request is accompanied by a single letter stamp. All communications addressed to

HENRY EDDY, M. D., North Bridgewater, Mass.
Jan. 7, 1854. cow3m

## Imported Suffolk Boar,

BULRUSH.



The subscriber now offers the services of his Suffolk Boar, BULRUSH, (to those who wish to improve their Stock.) Bulrush was imported last spring, and is now about one year old. He is remarkably vigorous, and a superior animal. He will be kept for the present, at my stable, near the Depot, Concord, Mass.

JOHN RAYNOLDS.
Dec. 17, 1853. tf.

## Wanted,

A THOROUGH bred Farmer and Gardener, to take the charge of a farm situated 15 miles from the city; one who is well acquainted with his business, none other need apply, address No. 27 Tremont Row.

Jan. 21, 1854. 3t